

CHAPTER 4

POINT AND NONPOINT SOURCE CHARACTERIZATION OF THE CLEAR FORK OF THE CUMBERLAND RIVER WATERSHED

4.1 Background.

4.2. Characterization of HUC-10 Subwatersheds

4.2.A. 0513010104 (Yellow Creek)

4.2.B. 0513010105 (Clear Fork Creek)

4.2.C. 0513010106 (Hickory Creek)

4.2.D. 0513010107 (Jellico Creek)

4.2.E. 0513010108 (Marsh Creek)

4.1. BACKGROUND. This chapter is organized by HUC-12 subwatershed, and the description of each subwatershed is divided into four parts:

- i. General description of the subwatershed
- ii. Description of point source contributions
 - ii.a. Description of facilities discharging to water bodies listed on the 2004 303(d) list
- iii. Description of nonpoint source contributions

The Tennessee portion of the Clear Fork of the Cumberland River Watershed (HUC 05130101) has been delineated into five HUC 10 (10-digit) subwatersheds, each of which is composed of one or more HUC-12 subwatersheds.

Information for this chapter was obtained from databases maintained by the Division of Water Pollution Control or provided in the WCS (Watershed Characterization System) data set. The WCS used was version 2.0 (developed by Tetra Tech, Inc for EPA Region 4) released in 2003.

WCS integrates with ArcView® v3.x and Spatial Analyst® v1.1 to analyze user-delineated (sub)watersheds based on hydrologically connected water bodies. Reports are generated by integrating WCS with Microsoft® Word. Land Use/Land Cover information from 1992 MRLC (Multi-Resolution Land Cover) data are calculated based on the proportion of county-based land use/land cover in user-delineated (sub)watersheds. Nonpoint source data in WCS are based on agricultural census data collected 1992–1998; nonpoint source data were reviewed by Tennessee NRCS staff.

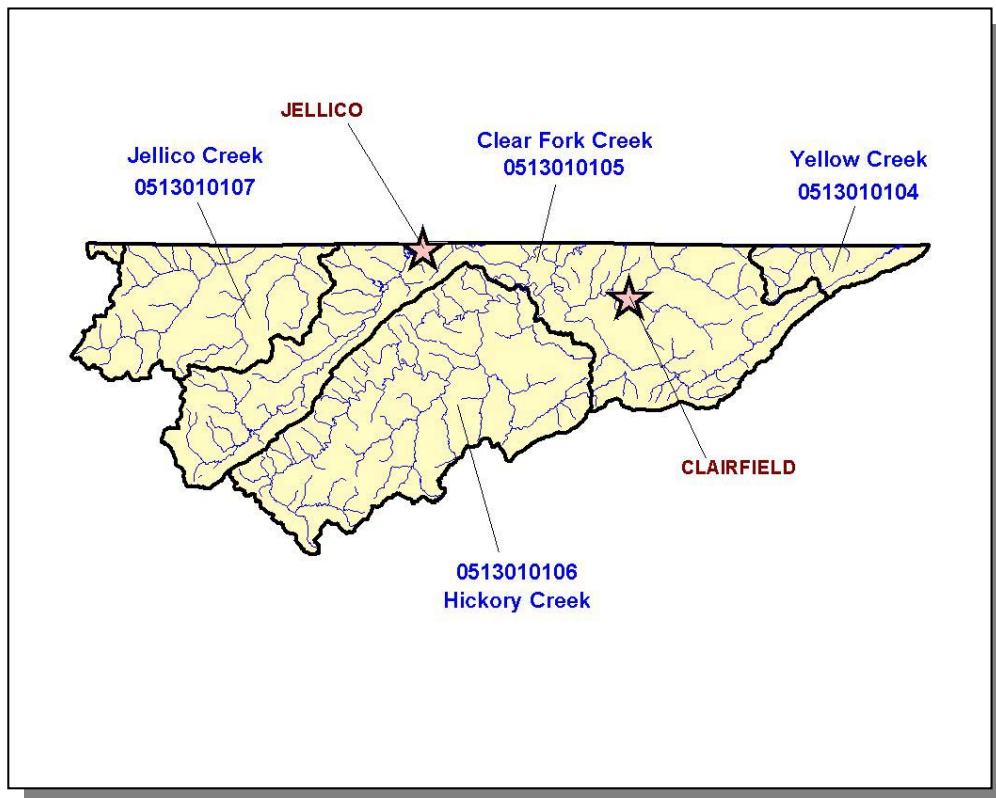


Figure 4-1. The Tennessee Portion of the Clear Fork of the Cumberland River Watershed is Composed of Five USGS-Delineated Subwatersheds (10-Digit Subwatersheds). Locations of Clairfield and Jellico are shown for reference.

4.2. CHARACTERIZATION OF HUC-10 SUBWATERSHEDS. The Watershed Characterization System (WCS) software and data sets provided by EPA Region IV were used to characterize each subwatershed in the Tennessee portion of the Clear Fork of the Cumberland River Watershed.

HUC-10	HUC-12
0513010104	051301010401 (Yellow Creek)
0513010105	051301010501 (Clear Fork Creek)
	051301010502 (Tackett Creek)
	051301010503 (Clear Fork Creek)
	051301010504 (Laural Creek)
	051301010505 (Mud Creek)
	051301010506 (Elk Fork Creek)
0513010106	051301010601 (Hickory Creek)
	051301010602 (Stinking Creek)
	051301010603 (Hickory Creek)
0513010107	051301010701 (Jellico Creek)
0513010108	051301010801 (Marsh Creek)

Table 4-1. HUC-12 Drainage Areas are Nested Within HUC-10 Drainages. NRCS worked with USGS to delineate the HUC-10 and HUC-12 drainage boundaries.

4.2.A. 0513010104.

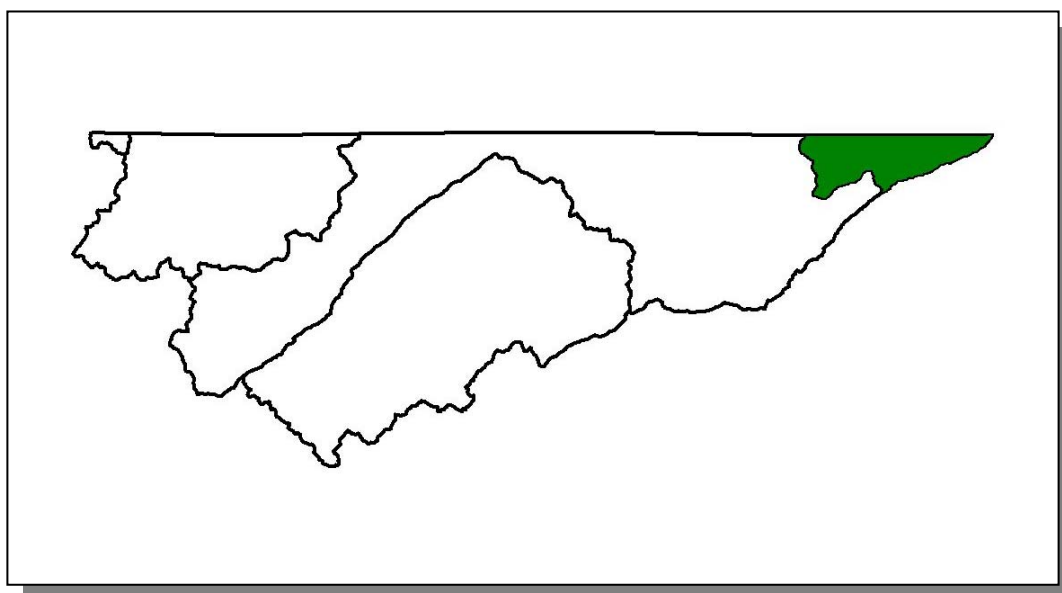


Figure 4-2. Location of Subwatershed 0513010104. All Clear Fork of the Cumberland River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

4.2.A.i. 051301010401 (Yellow Creek).

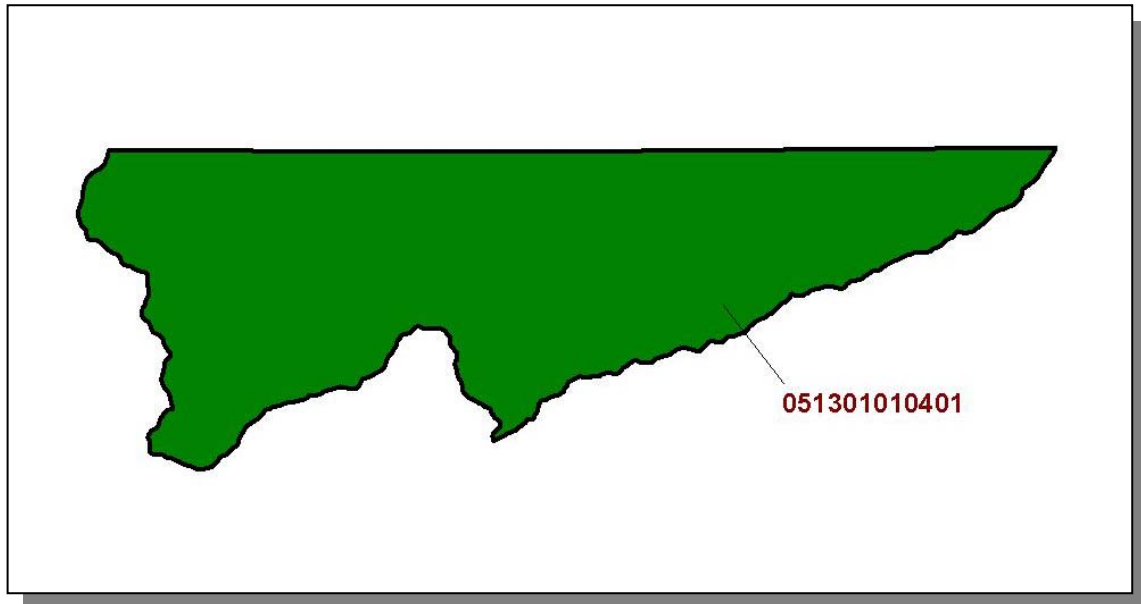


Figure 4-3. Location of Subwatershed 051301010401. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

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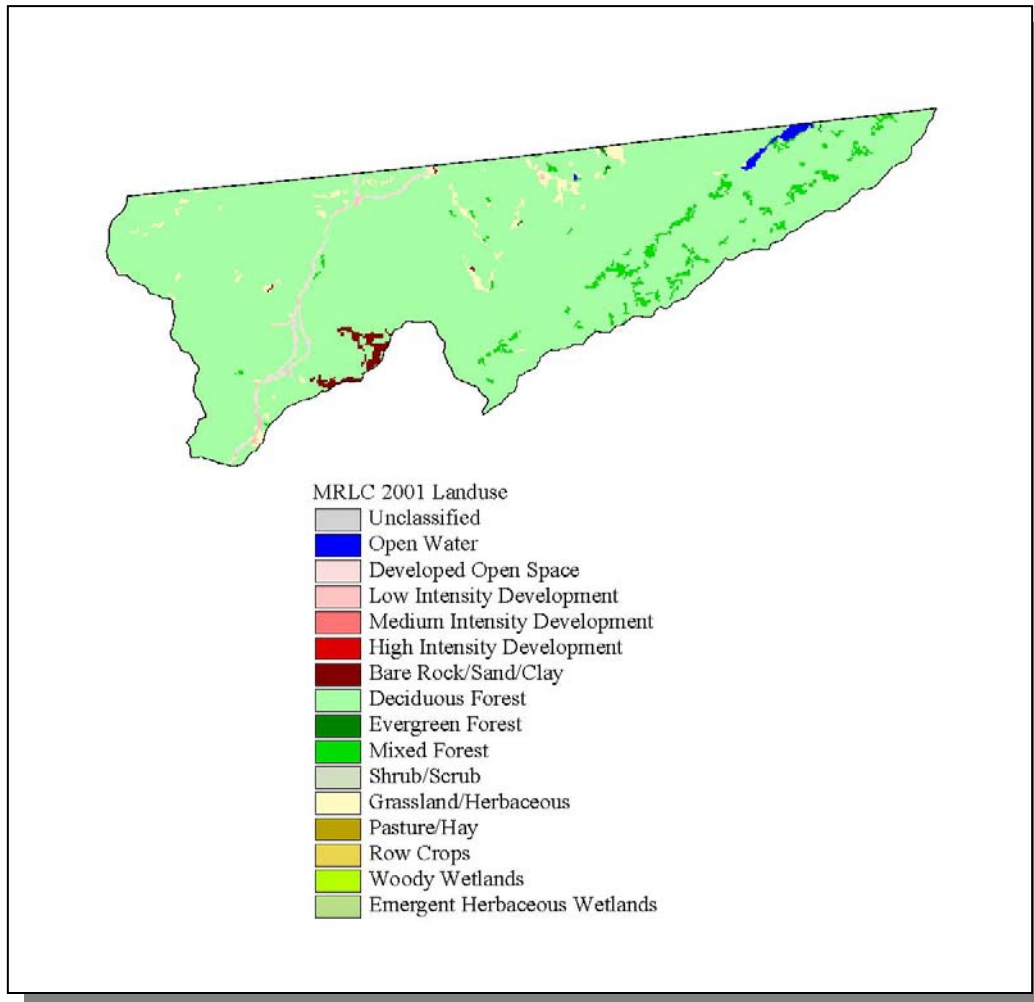


Figure 4-4. Illustration of Land Use Distribution in Subwatershed 051301010401.

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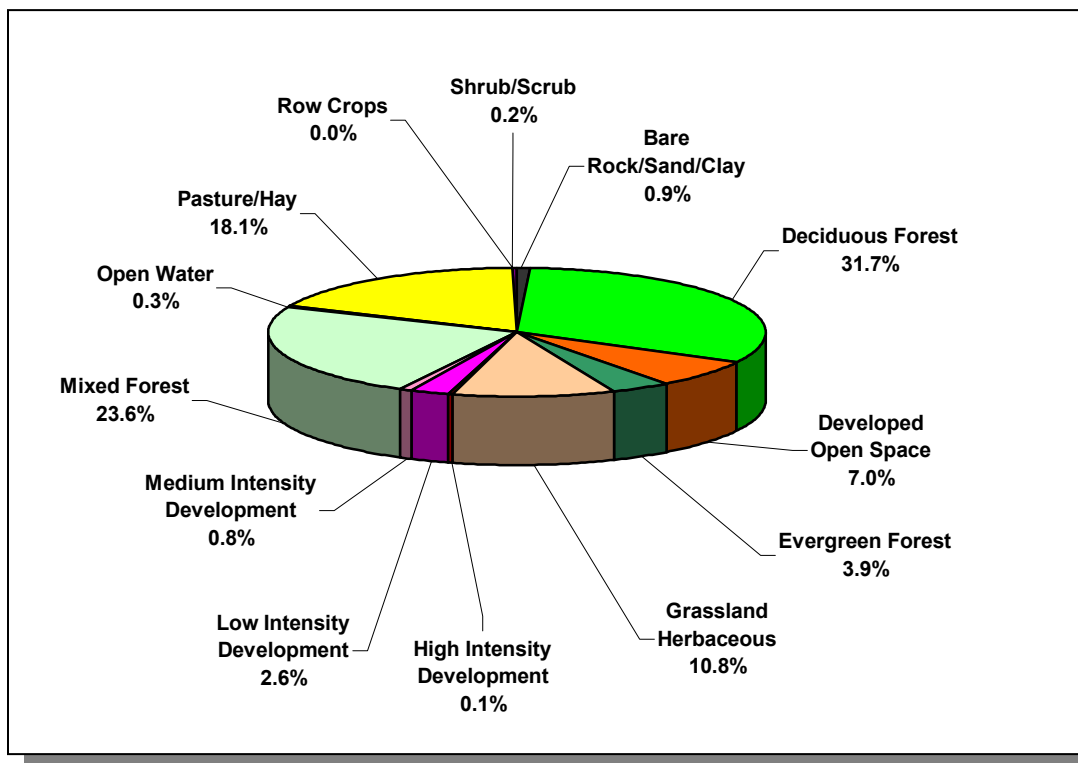


Figure 4-5. Land Use Distribution in Subwatershed 051301010401. More information is provided in Appendix IV.

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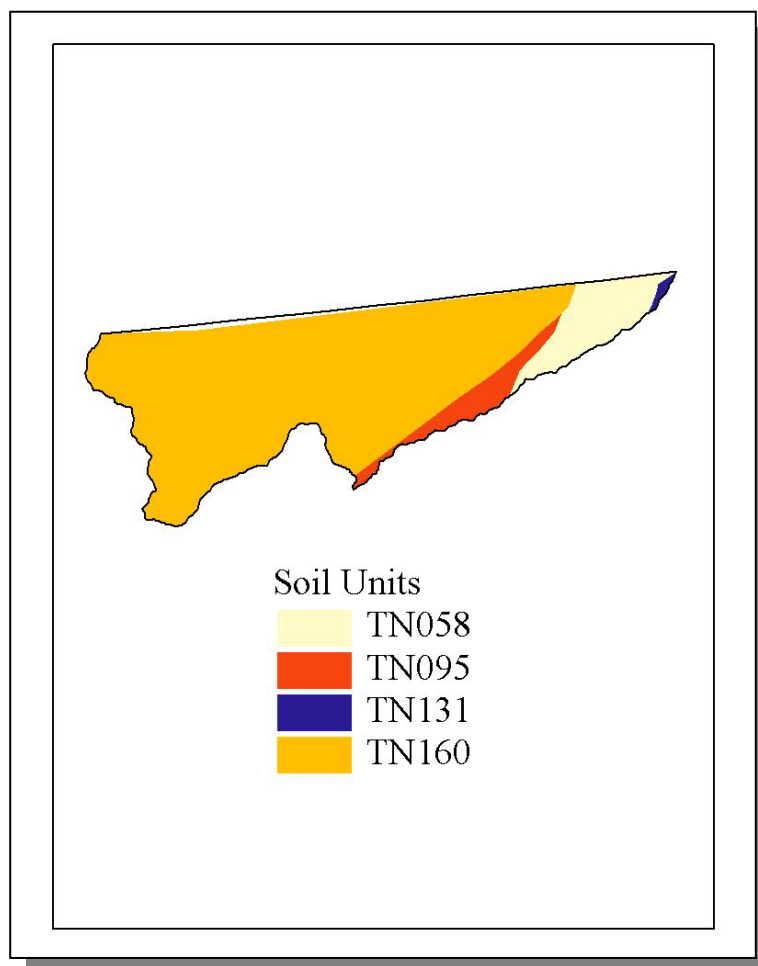


Figure 4-6. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010401.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN058	0.00	B	4.50	5.00	Loam	0.25
TN095	0.00	B	2.35	5.12	Loam	0.31
TN131	0.00	C	1.17	4.95	Silty Loam	0.33
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-2. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010401. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Claiborne	26,137	28,963	29,862	3.06	801	887	915	14.2

Table 4-3. Population Estimates in Subwatershed 051301010401.

4.2.A.i.a. Point Source Contributions.

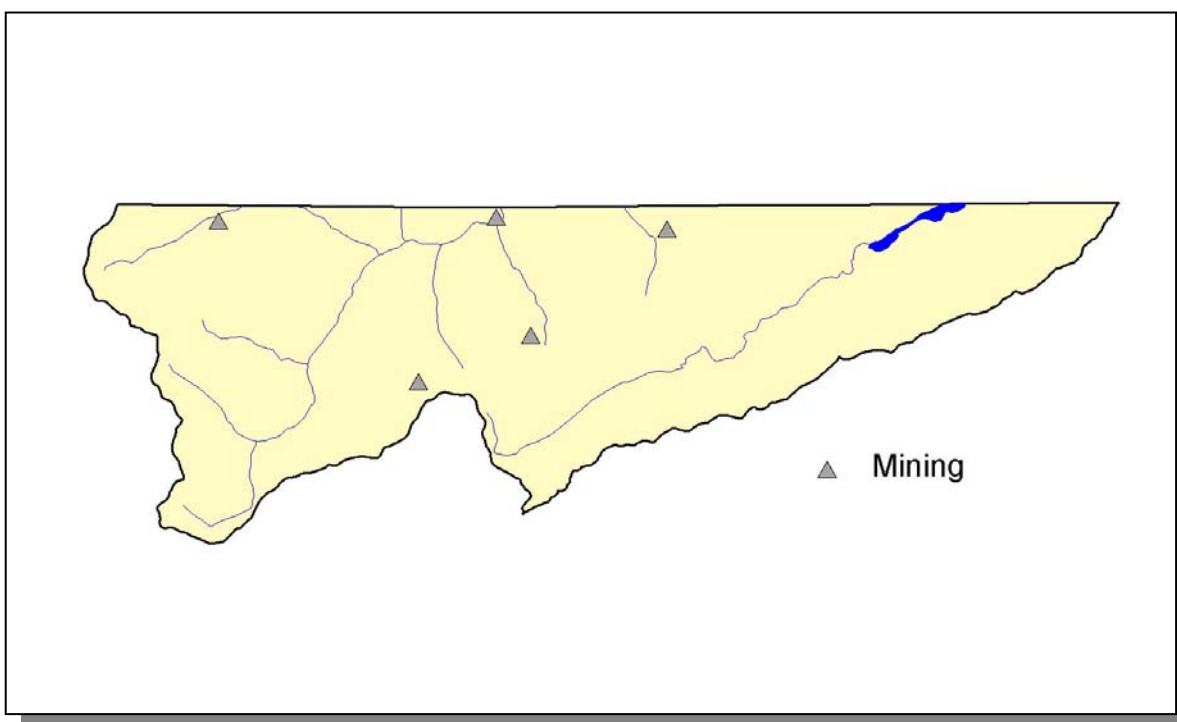


Figure 4-7. Location of Permits Issued in Subwatershed 051301010401. More information, including the names of facilities, is provided in Appendix IV.

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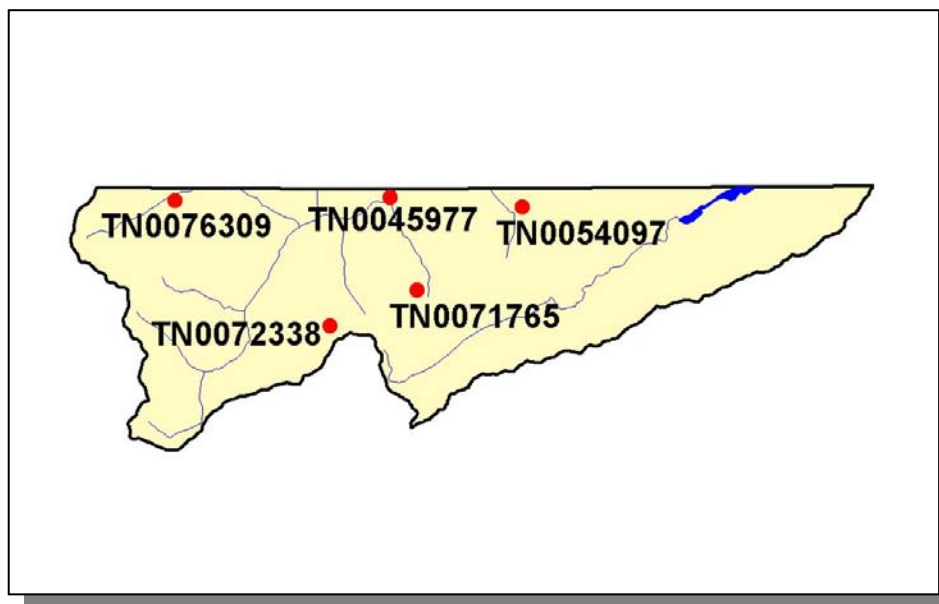


Figure 4-8. Location of Active Mining Sites in Subwatershed 051301010401. More information, including the names of mining operations, is provided in Appendix IV.

4.2.A.i.b. Nonpoint Source Contributions.

LIVESTOCK COUNT	
Beef Cow	Cattle
6	11

Table 4-4. Summary of Livestock Count Estimates in Subwatershed 051301010401. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), “Cattle” includes heifers, heifer calves, steers, bulls and bull calves; “Chickens” are layers 20 weeks and older; “Chickens Sold” are all chickens used to produce meat.

LIVESTOCK COUNTS					
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Sheep
Claiborne	18,697	36,566	1,082	420	165

Table 4-5. Summary of Livestock Count Estimates in Claiborne County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), “Cattle” includes heifers, heifer calves, steers, bulls and bull calves; “Chickens” are layers 20 weeks and older; “Chickens Sold” are all chickens used to produce meat.

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County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Claiborne	167.6	167.6	2.6	12.1

Table 4-6. Forest Acreage and Annual Removal Rates (1987-1994) in Subwatershed 051301010401.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.38
Grass, Forbs, Legumes (Mixed Pasture)	0.13
Farmsteads and Ranch Headquarters	0.43

Table 4-7. Annual Estimated Total Soil Loss in Subwatershed 051301010401.

4.2.B. 0513010105.

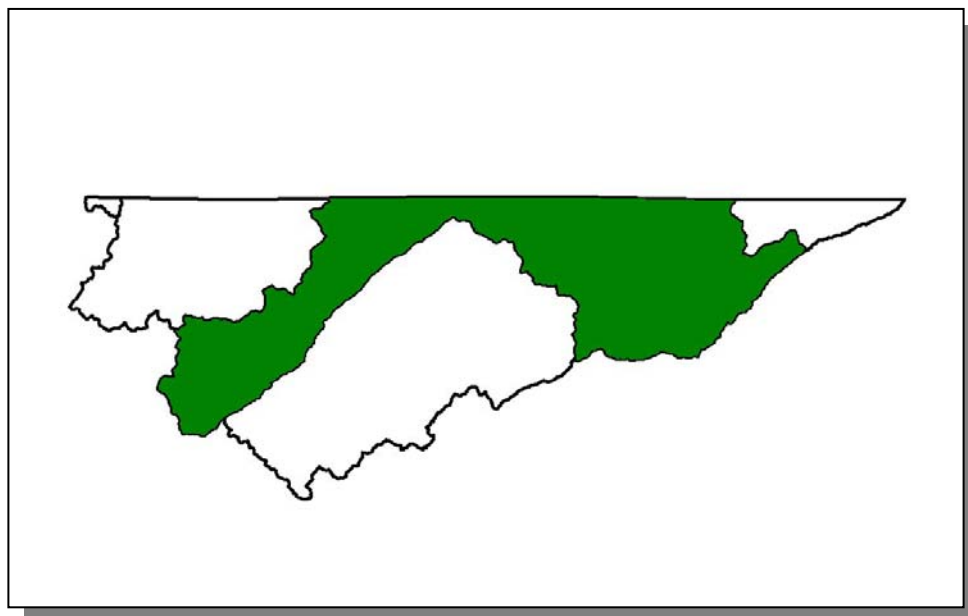


Figure 4-9. Location of Subwatershed 0513010105. All Clear Fork of the Cumberland River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

4.2.B.i. 051301010501 (Clear Fork Creek).

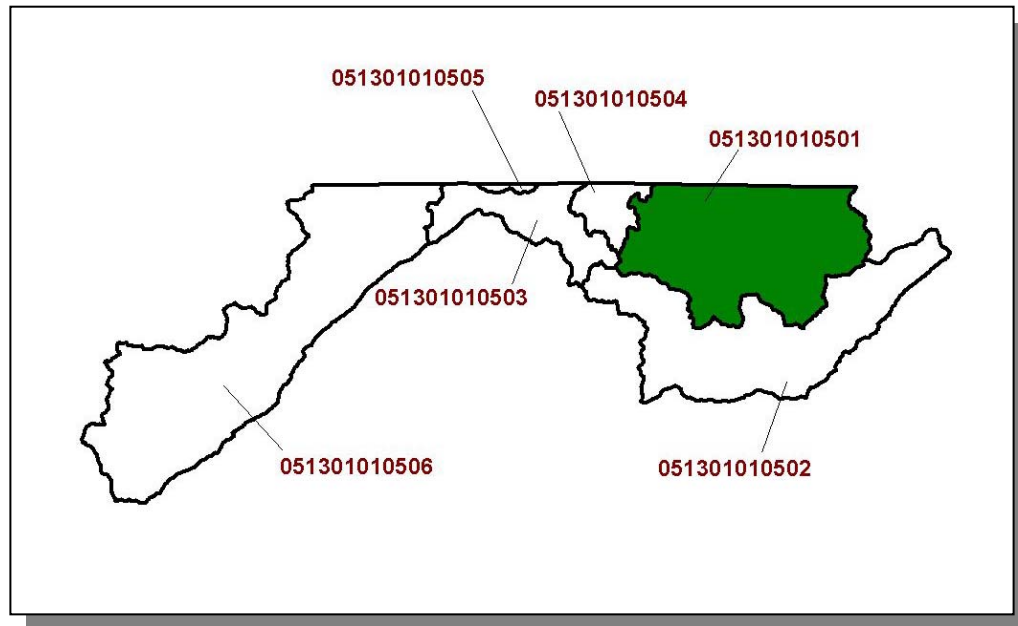


Figure 4-10. Location of Subwatershed 051301010501. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

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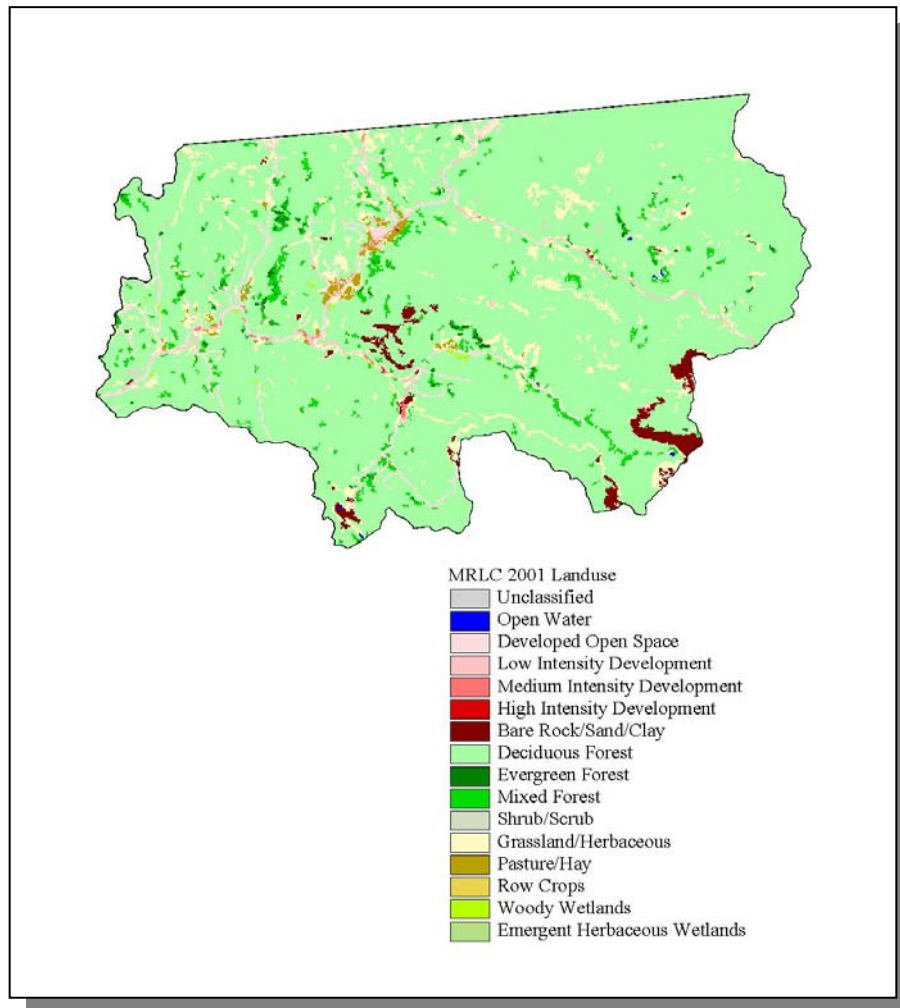


Figure 4-11. Illustration of Land Use Distribution in Subwatershed 051301010501.

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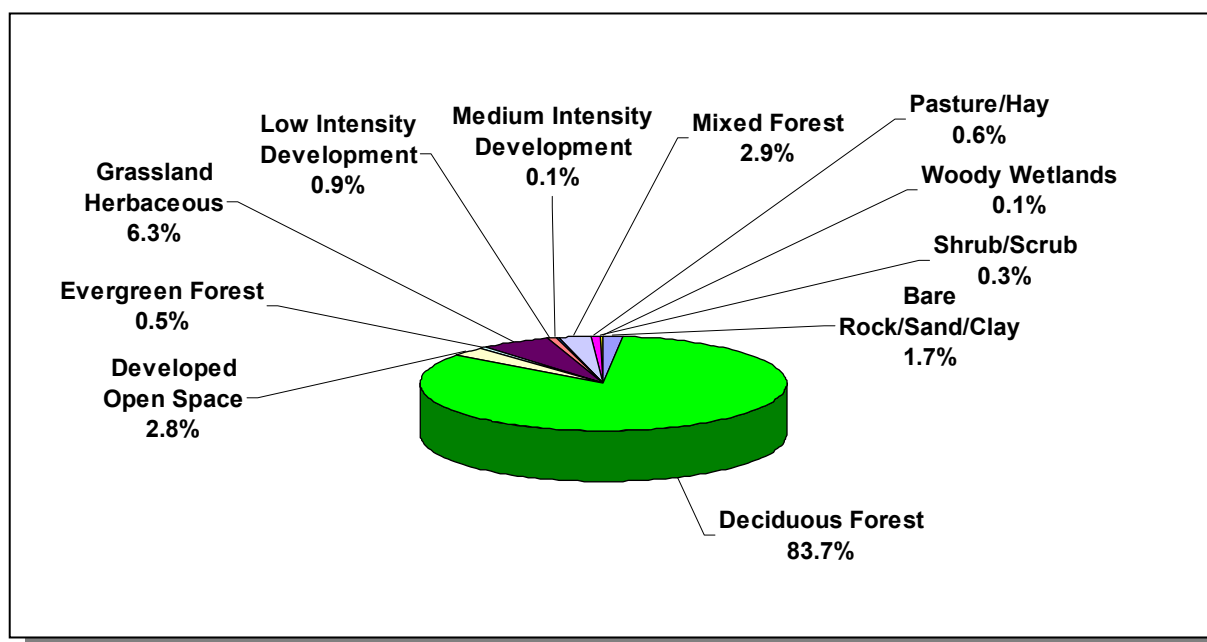


Figure 4-12. Land Use Distribution in Subwatershed 051301010501. More information is provided in Appendix IV.

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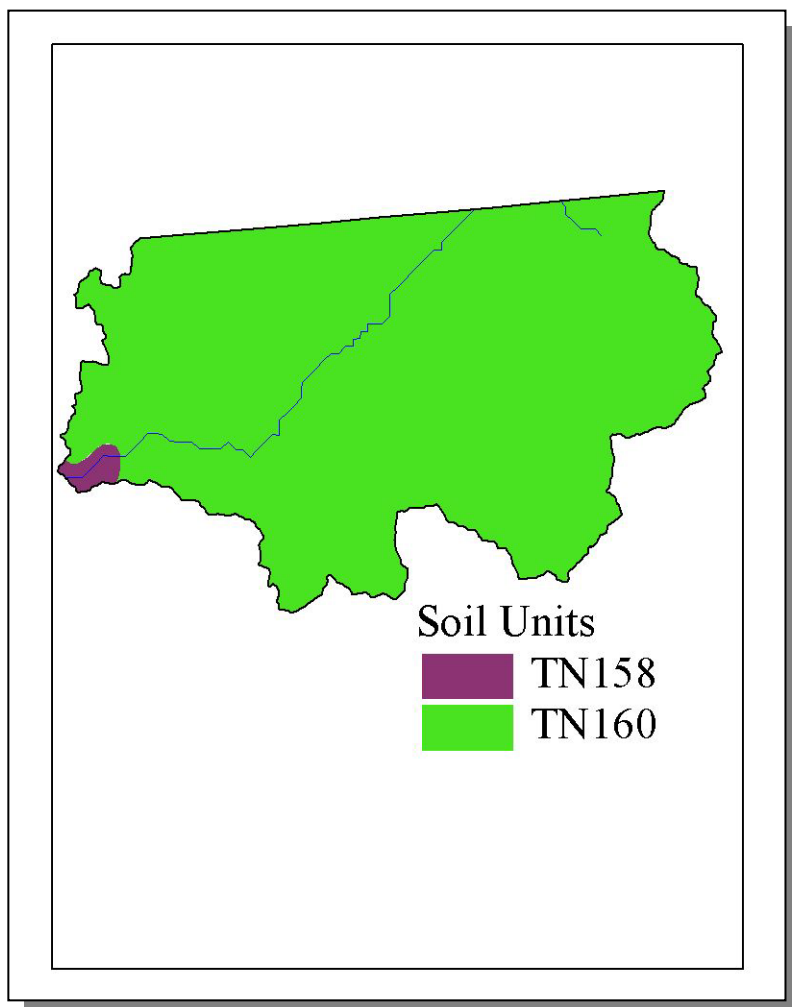


Figure 4-13. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010501.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN058	0.00	B	4.50	5.00	Loam	0.25
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-8. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010501. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Campbell	35,079	37,878	39,854	0.21	74	80	84	13.5
Claiborne	26,137	28,963	29,862	7.63	1,995	2,211	2,279	14.2
Total	61,216	66,841	69,716		2,069	2,291	2,363	14.2

Table 4-9. Population Estimates in Subwatershed 051301010501.

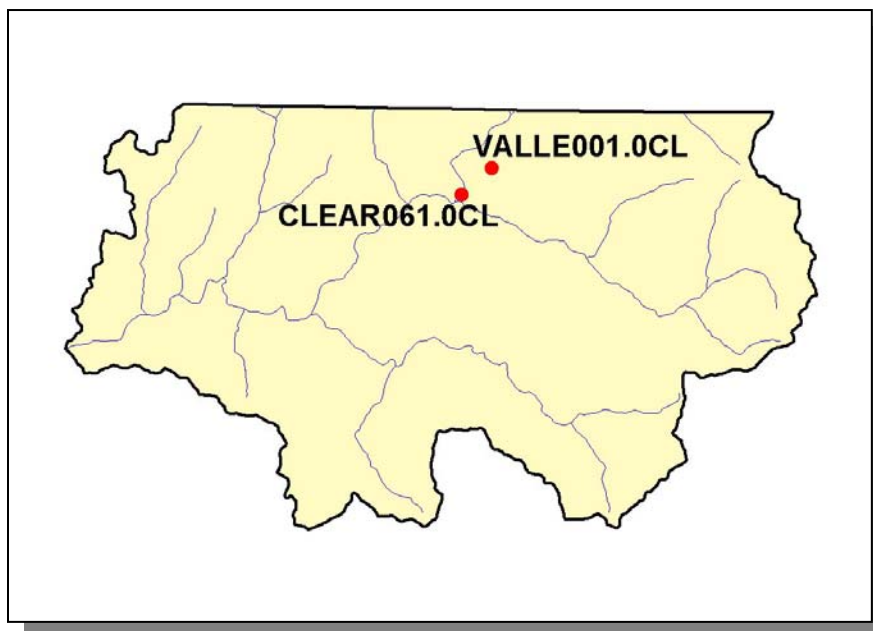


Figure 4-14. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301010501. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.B.i.a. Point Source Contributions.

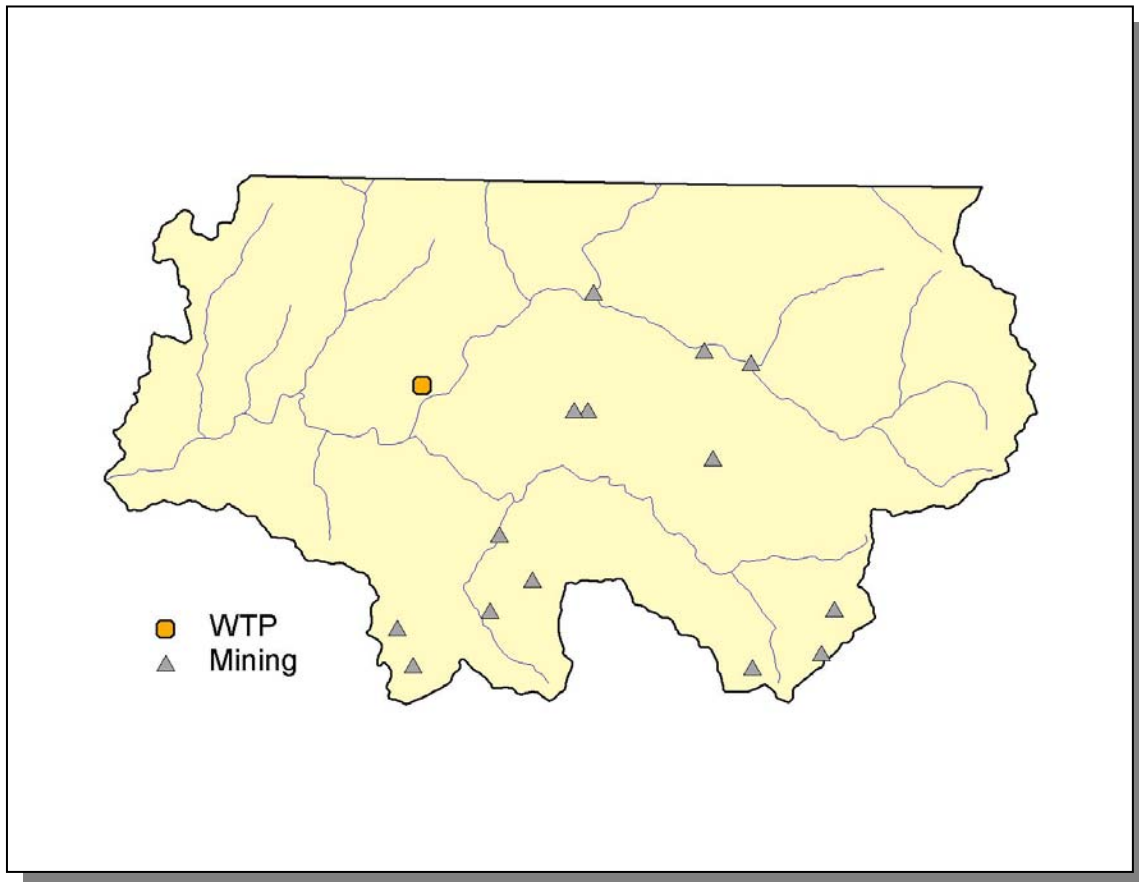


Figure 4-15. Location of Permits Issued in Subwatershed 051301010501. More information, including the names of facilities, is provided in Appendix IV.

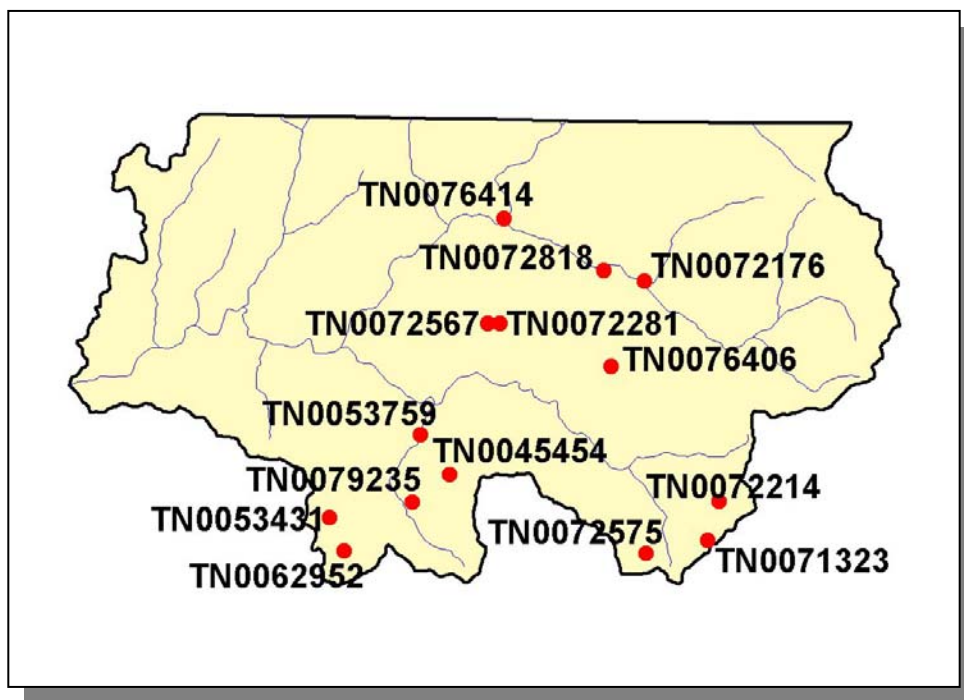


Figure 4-16. Location of Active Mining Sites in Subwatershed 051301010501. More information, including the names of mining operations, is provided in Appendix IV.



Figure 4-17. Location of Water Treatment Plants in Subwatershed 051301010501. More information, including the names of facilities, is provided in Appendix IV.

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4.2.B.i.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS		
Beef Cow	Cattle	Milk Cow
49	95	3

Table 4-10. Summary of Livestock Count Estimates in Subwatershed 051301010501. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Campbell	4,083	7,684	66	8	14	0
Claiborne	18,697	36,566	1,082	420	0	165

Table 4-11. Summary of Livestock Count Estimates in Campbell and Claiborne Counties. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6
Claiborne	167.6	167.6	2.6	12.1

Table 4-12. Forest Acreage and Annual Removal Rates (1987-1994) in Campbell and Claiborne Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.42
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	0.21
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33
Farmsteads and Ranch Headquarters	0.42

Table 4-13. Annual Estimated Total Soil Loss in Subwatershed 051301010501.

4.2.B.ii. 051301010502 (Tackett Creek).

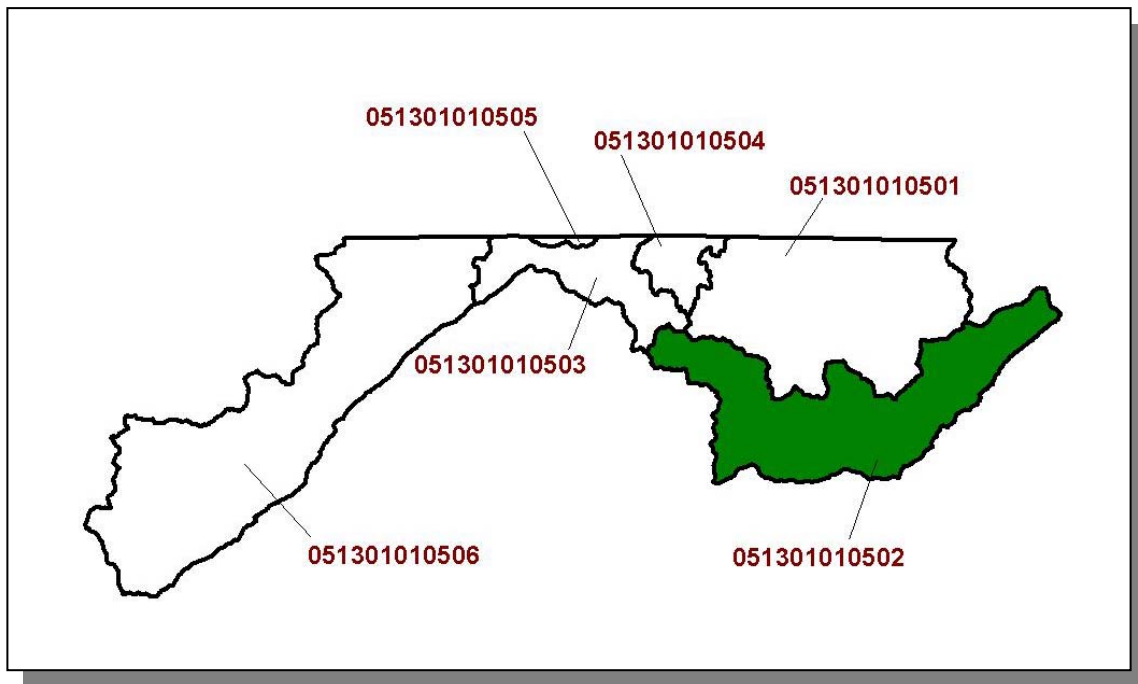


Figure 4-18. Location of Subwatershed 051301010502 All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

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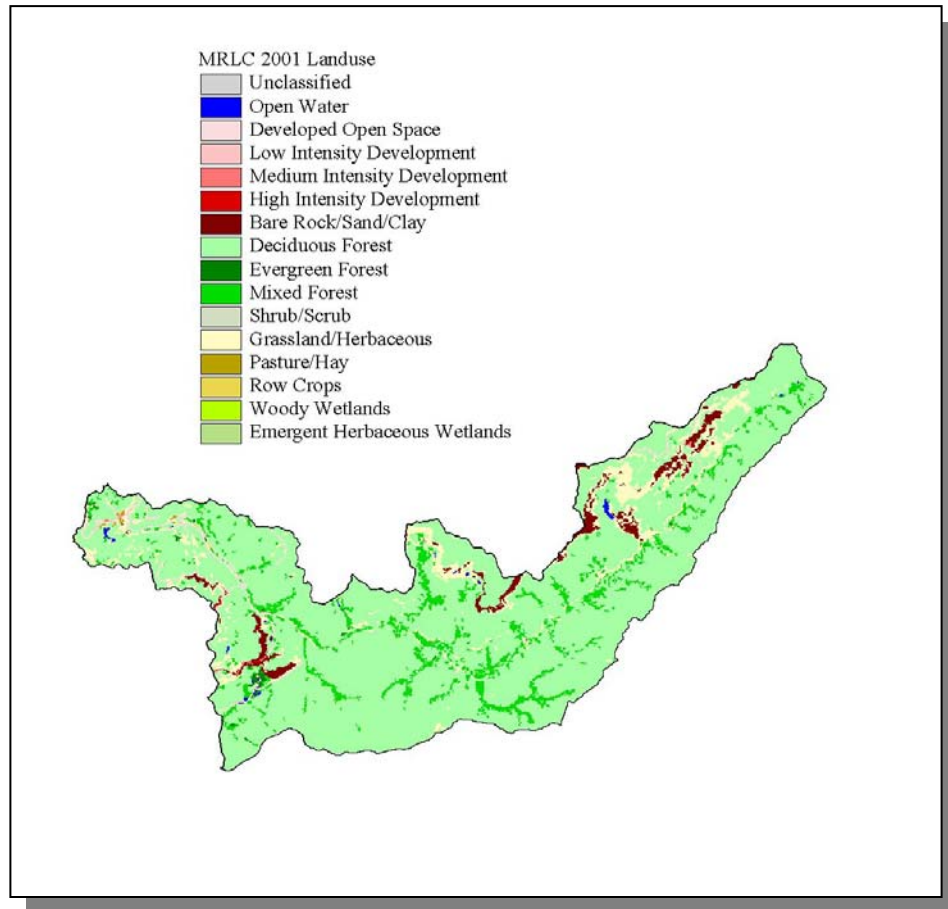


Figure 4-19. Illustration of Land Use Distribution in Subwatershed 051301010502.

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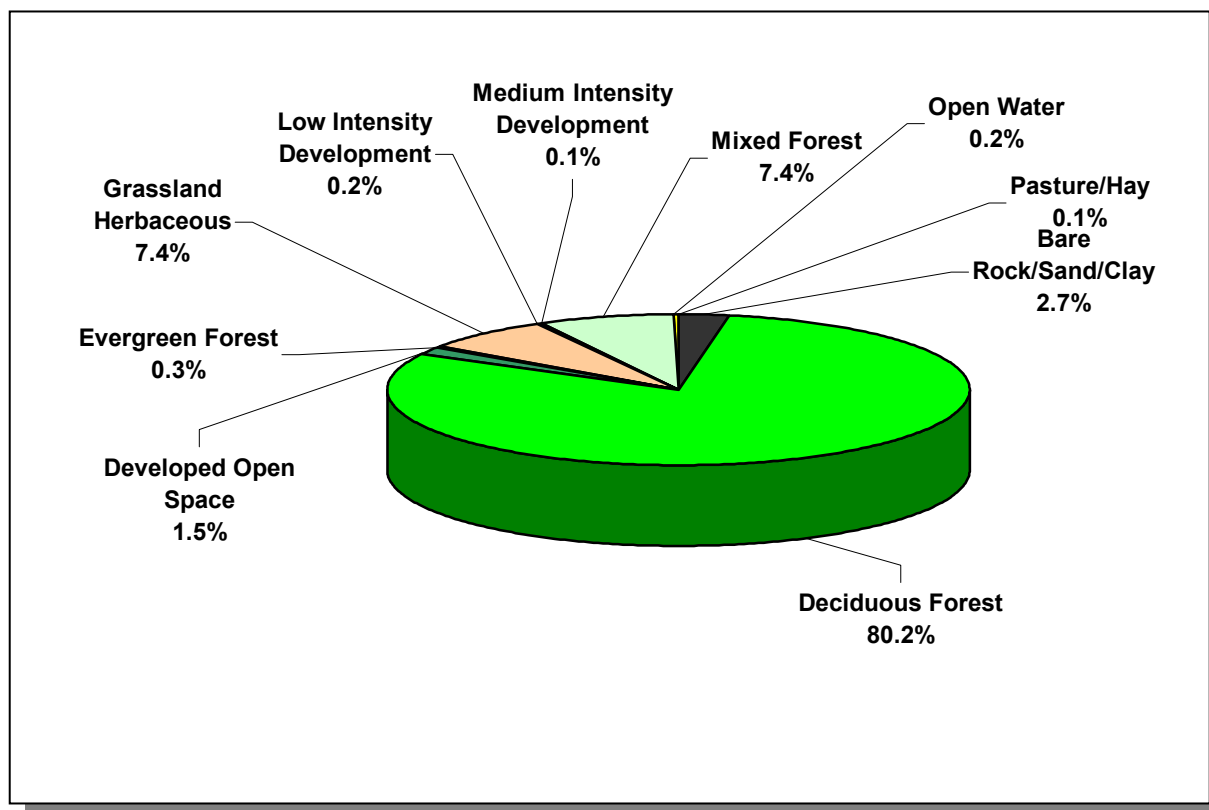


Figure 4-20. Land Use Distribution in Subwatershed 051301010502. More information is provided in Appendix IV.

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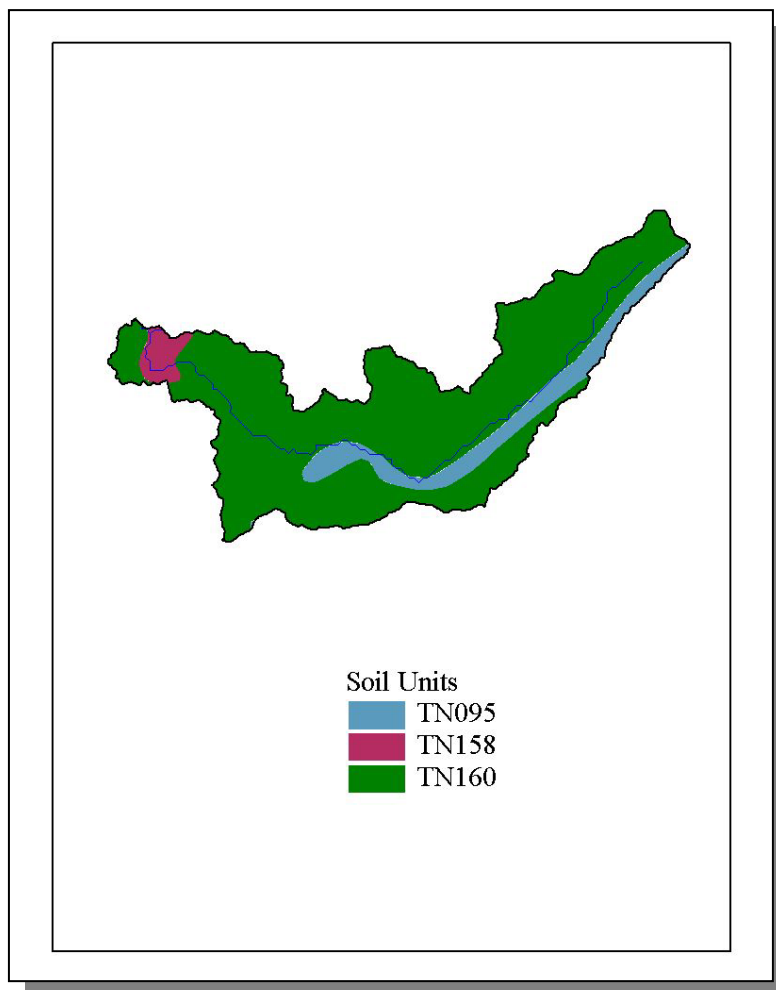


Figure 4-21. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010502.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN158	22.00	C	1.89	5.14	Silty Loam	0.29
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-14. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010502. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Campbell	35,079	37,878	39,854	1.75	612	661	696	13.7
Claiborne	26,137	28,963	29,862	5.61	1,467	1,626	1,677	14.3
Total	61,216	66,841	69,716		2,079	2,287	2,373	14.1

Table 4-15. Population Estimates in Subwatershed 051301010502.

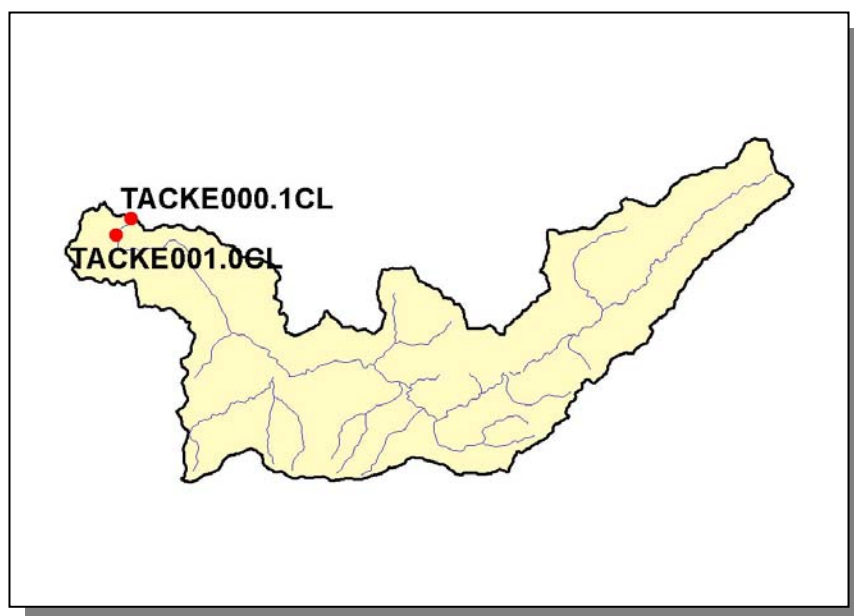


Figure 4-22. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301010502. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.B.ii.a. Point Source Contributions.

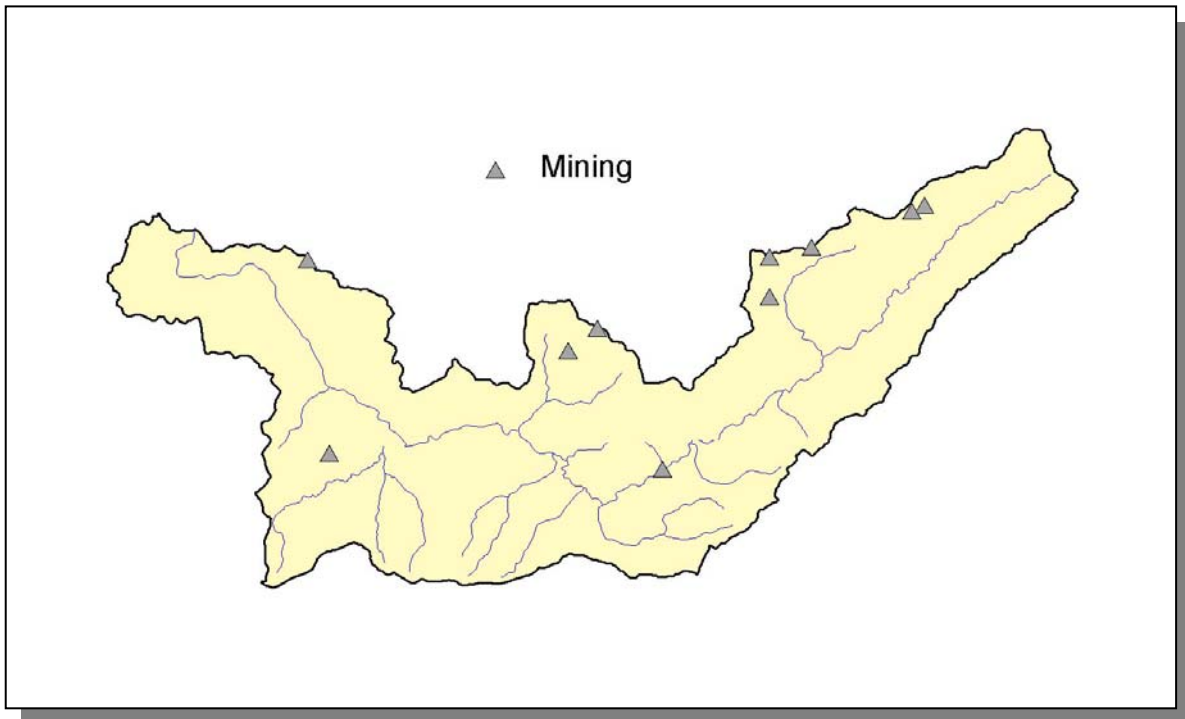


Figure 4-23. Location of Permits Issued in Subwatershed 051301010502. More information, including the names of facilities, is provided in Appendix IV.

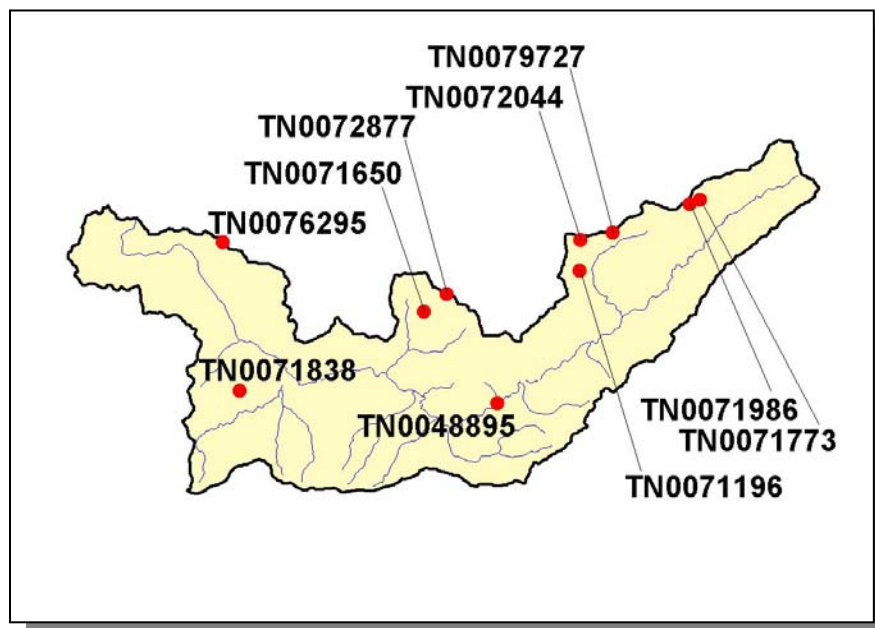


Figure 4-24. Location of Active Mining Sites in Subwatershed 051301010502. More information, including the names of mining operations, is provided in Appendix IV.

4.2.B.ii.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS		
Beef Cow	Cattle	Milk Cow
12	23	<5

Table 4-16. Summary of Livestock Count Estimates in Subwatershed 051301010502. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), “Cattle” includes heifers, heifer calves, steers, bulls and bull calves; “Chickens” are layers 20 weeks and older; “Chickens Sold” are all chickens used to produce meat.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chicken (Layers)	Hogs	Sheep
Campbell	4,083	7,684	66	8	14	0
Claiborne	18,697	36,566	1,082	420	0	165

Table 4-17. Summary of Livestock Count Estimates in Campbell and Claiborne Counties. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), “Cattle” includes heifers, heifer calves, steers, bulls and bull calves; “Chickens” are layers 20 weeks and older; “Chickens Sold” are all chickens used to produce meat.

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County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6
Claiborne	167.6	167.6	2.6	12.1

Table 4-18. Forest Acreage and Annual Removal Rates (1987-1994) in Campbell and Claiborne Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.72
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	0.79
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33
Farmsteads and Ranch Headquarters	0.34

Table 4-19. Annual Estimated Total Soil Loss in Subwatershed 051301010502.

4.2.B.iii. 051301010503 (Clear Fork Creek).

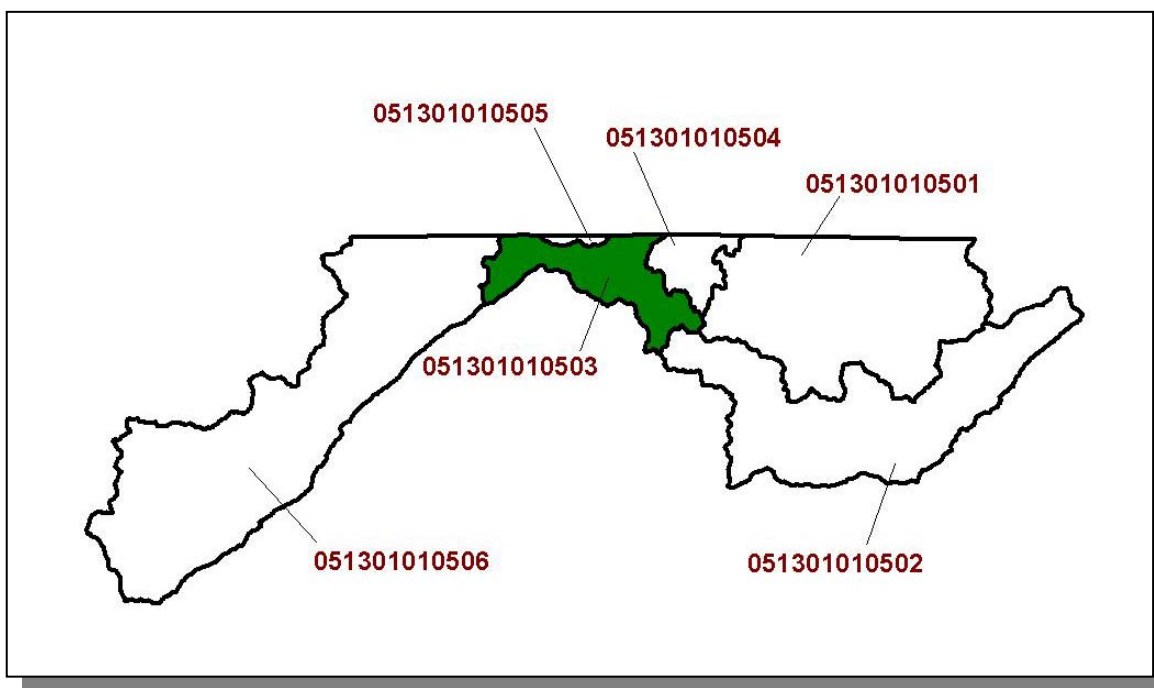


Figure 4-25. Location of Subwatershed 051301010503 All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

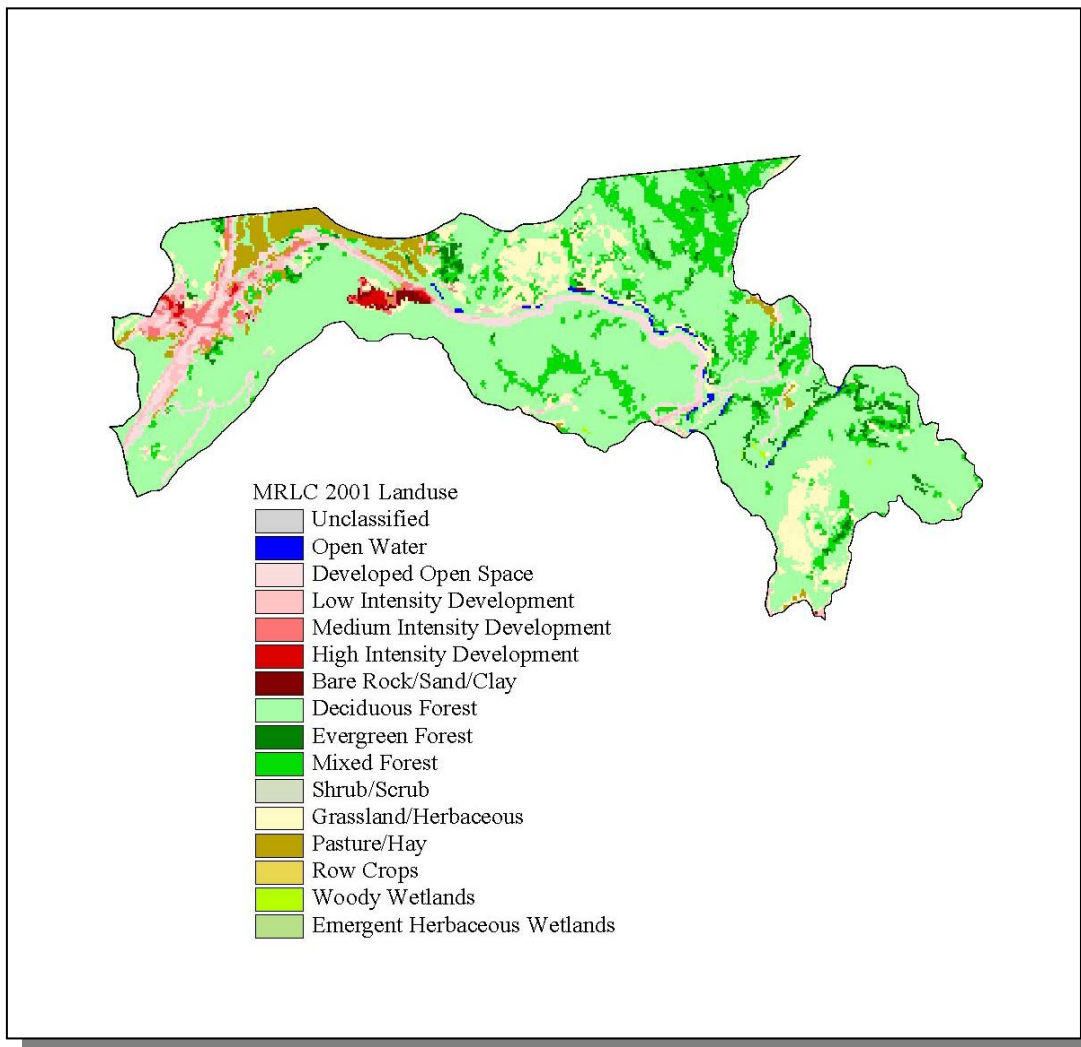


Figure 4-26. Illustration of Land Use Distribution in Subwatershed 051301010503.

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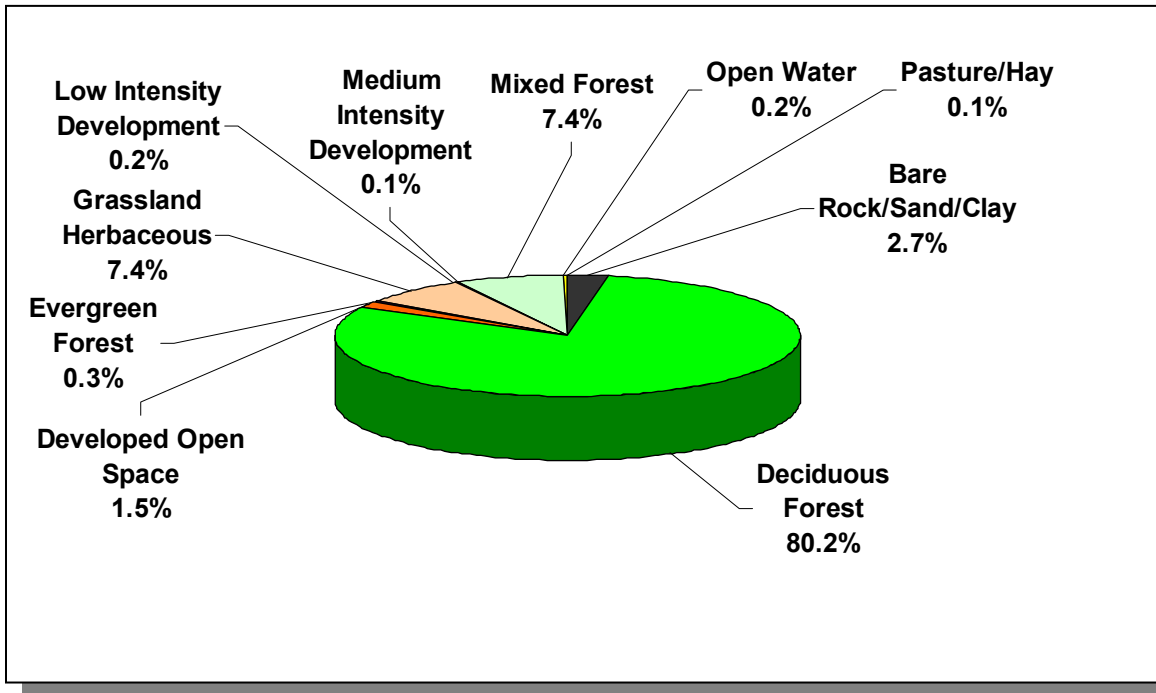


Figure 4-27. Land Use Distribution in Subwatershed 051301010503. More information is provided in Appendix IV.

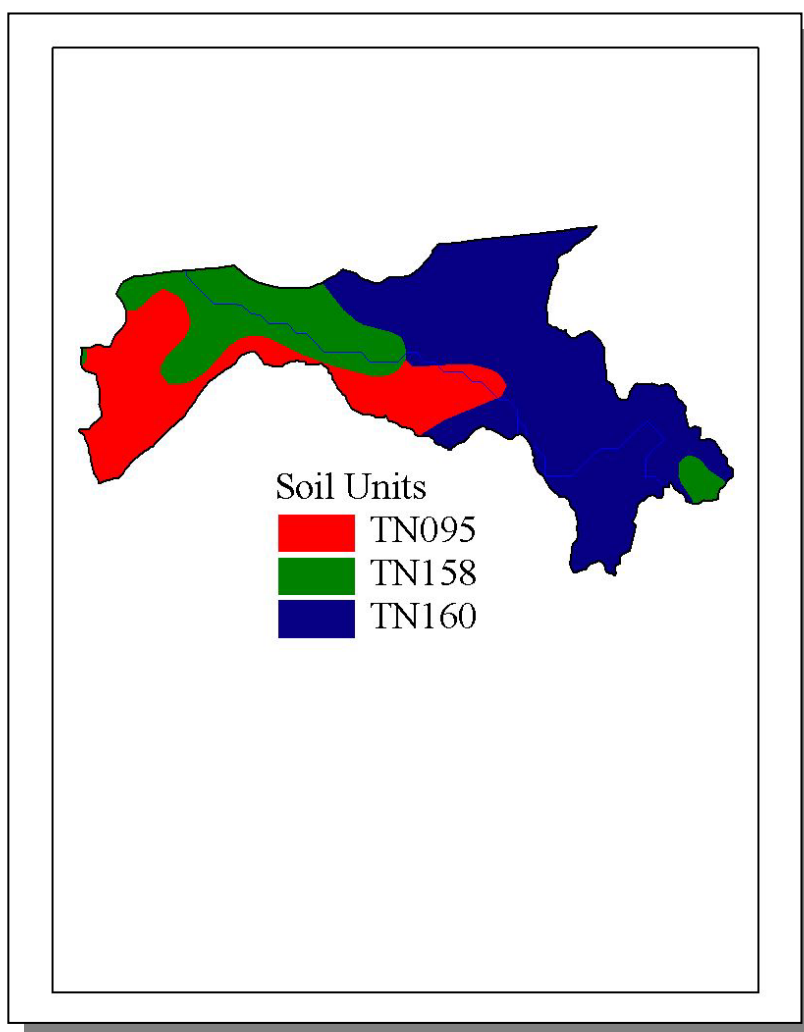


Figure 4-28. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010503.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN158	22.0	C	1.89	5.14	Silty Loam	0.29
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-20. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010503. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Campbell	35,079	37,878	39,854	2.26	791	854	899	13.7

Table 4-21. Population Estimates in Subwatershed 051301010503.

Populated Place	County	Population	NUMBER OF HOUSING UNITS			
			Total	Public Sewer	Septic Tank	Other
Jellico	Campbell	2,470	1,107	1,026	64	17

Table 4-22. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051301010503.

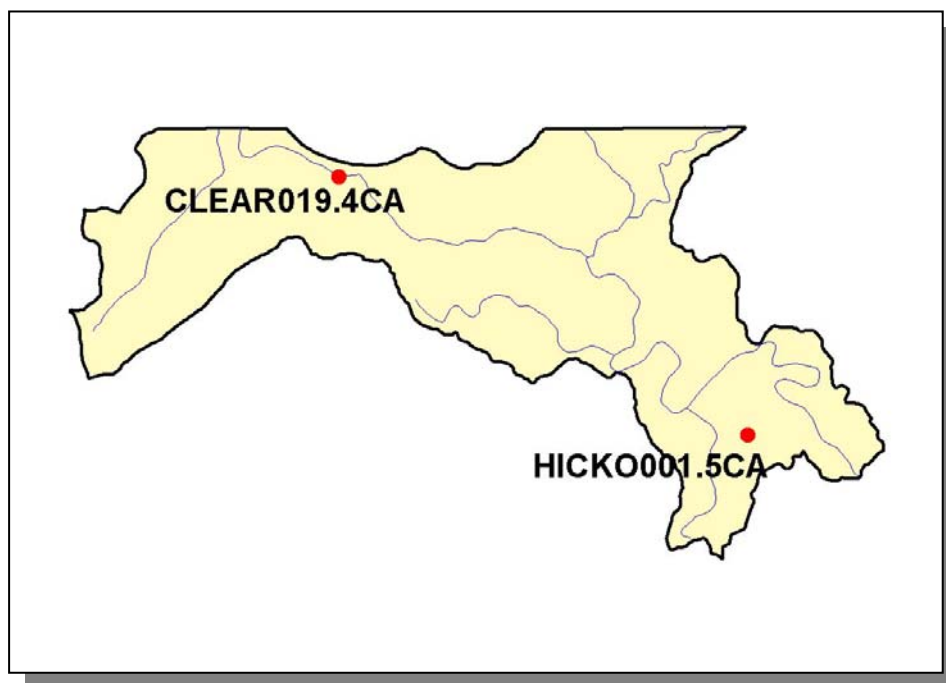


Figure 4-29. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301010503. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.B.iii.a. Point Source Contributions.

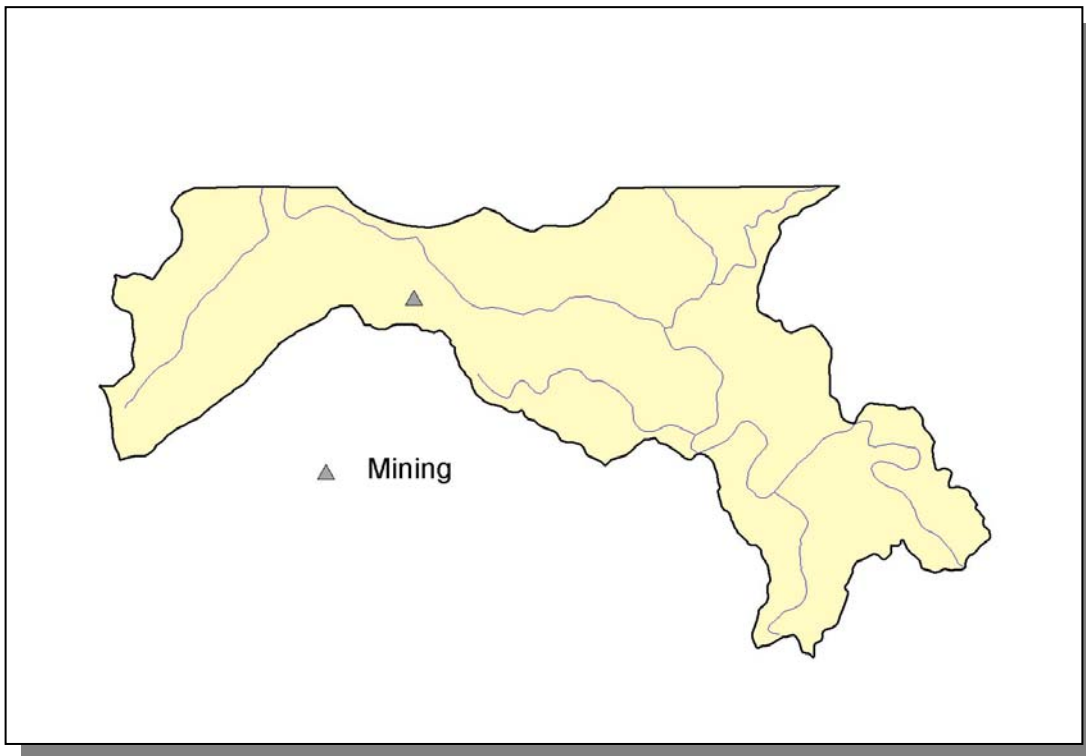


Figure 4-30. Location of Permits Issued in Subwatershed 051301010503. More information, including the names of facilities, is provided in Appendix IV.

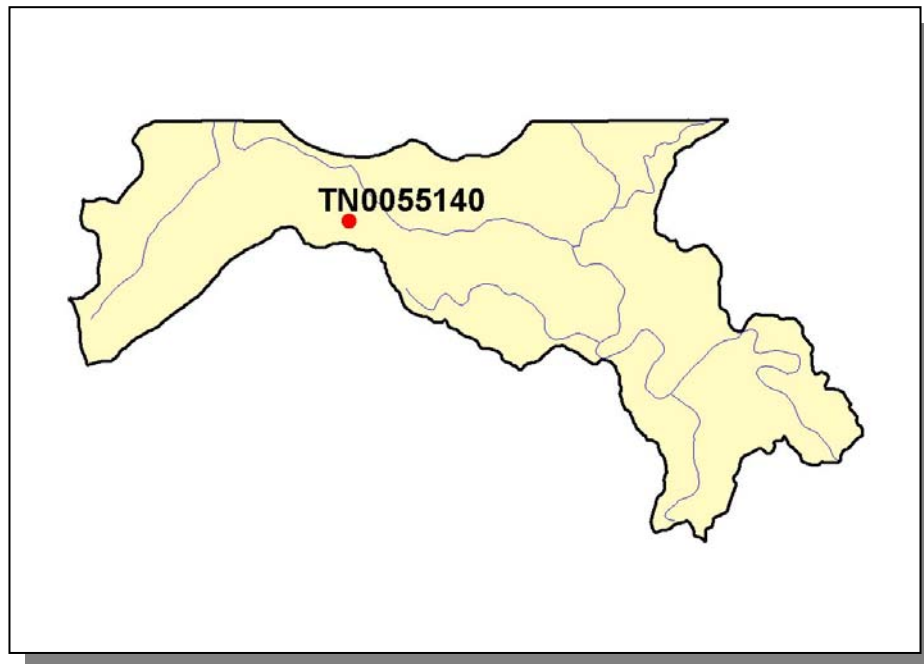


Figure 4-31. Location of Active Mining Sites in Subwatershed 051301010503. More information, including the names of mining operations, is provided in Appendix IV.

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4.2.B.iii.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS	
Beef Cow	Cattle
27	51

Table 4-23. Summary of Livestock Count Estimates in Subwatershed 051301010503. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves.

LIVESTOCK COUNTS					
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs
Campbell	4,083	7,684	66	8	14

Table 4-24. Summary of Livestock Count Estimates in Campbell County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6

Table 4-25. Forest Acreage and Annual Removal Rates (1987-1994) in Subwatershed 051301010503.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.73
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	2.74
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33
Farmsteads and Ranch Headquarters	0.07

Table 4-26. Annual Estimated Total Soil Loss in Subwatershed 051301010503.

4.2.B.iv. 051301010504 (Laural Creek).

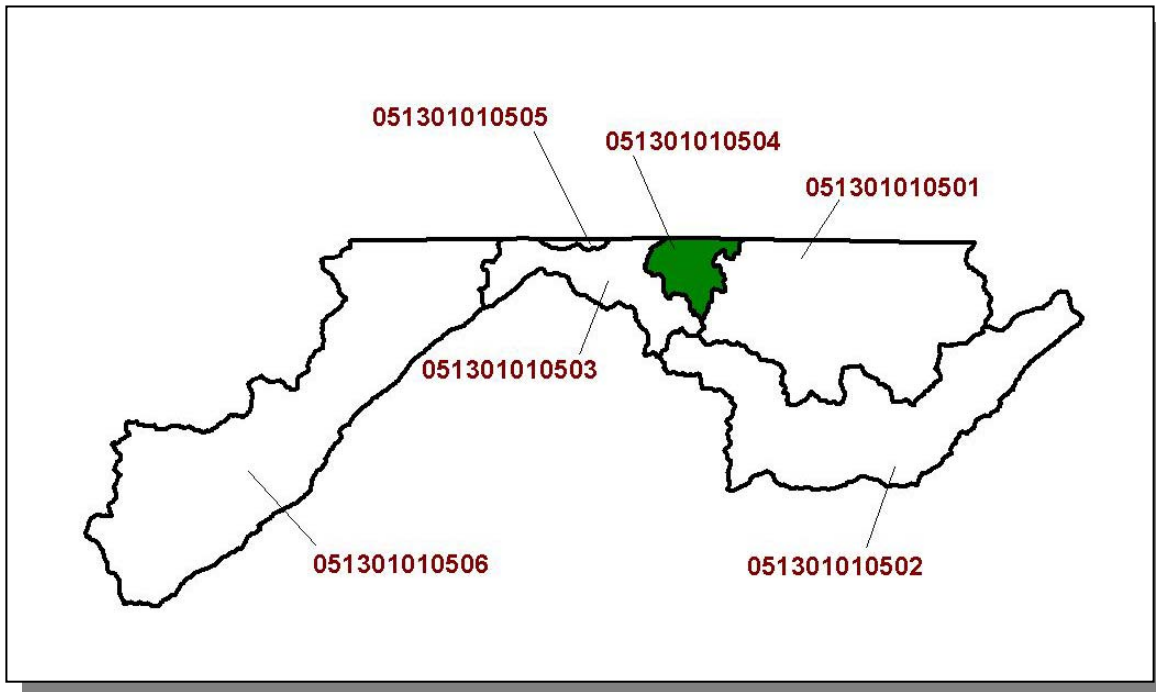


Figure 4-32. Location of Subwatershed 051301010504. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

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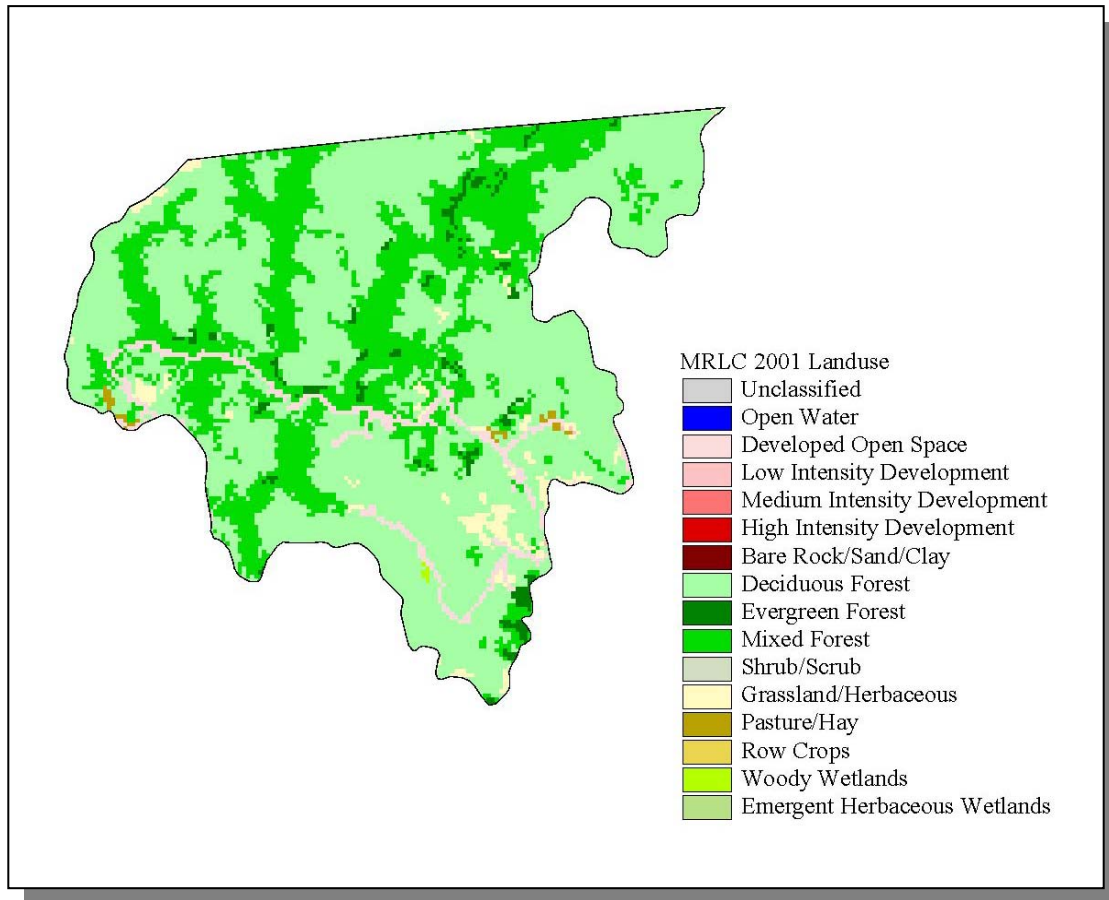


Figure 4-33. Illustration of Land Use Distribution in Subwatershed 051301010504.

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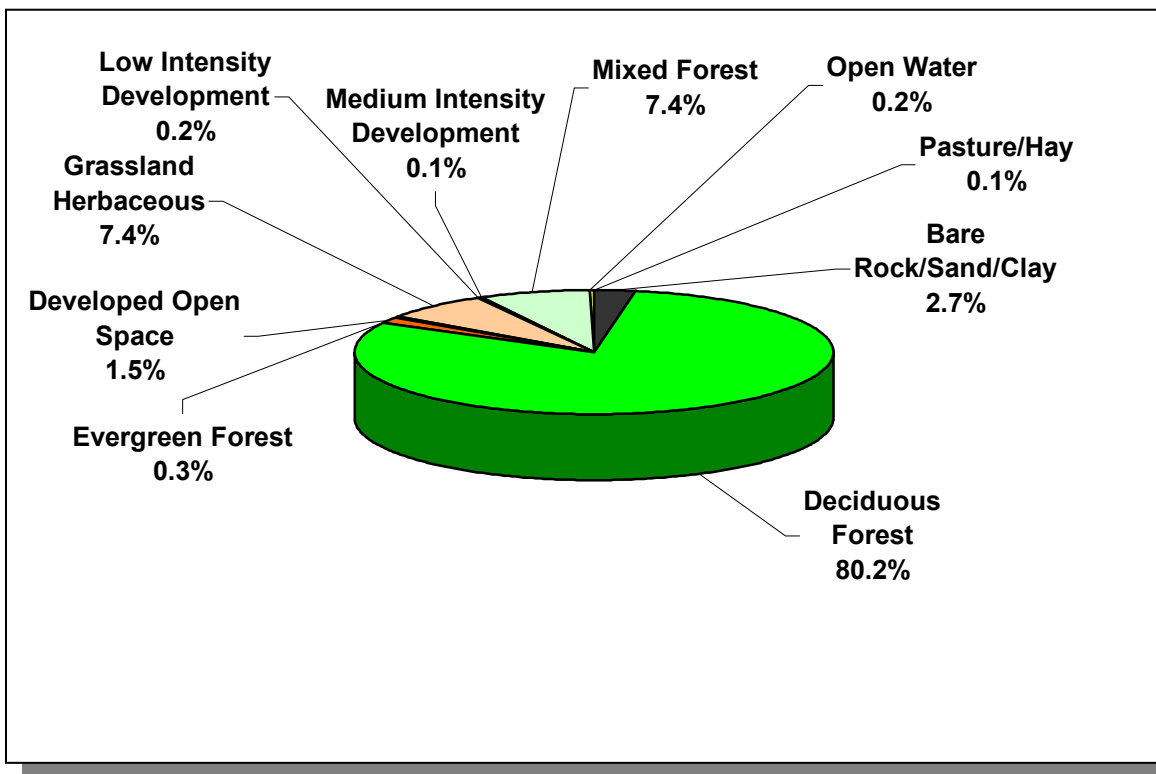


Figure 4-34. Land Use Distribution in Subwatershed 051301010504. More information is provided in Appendix IV.

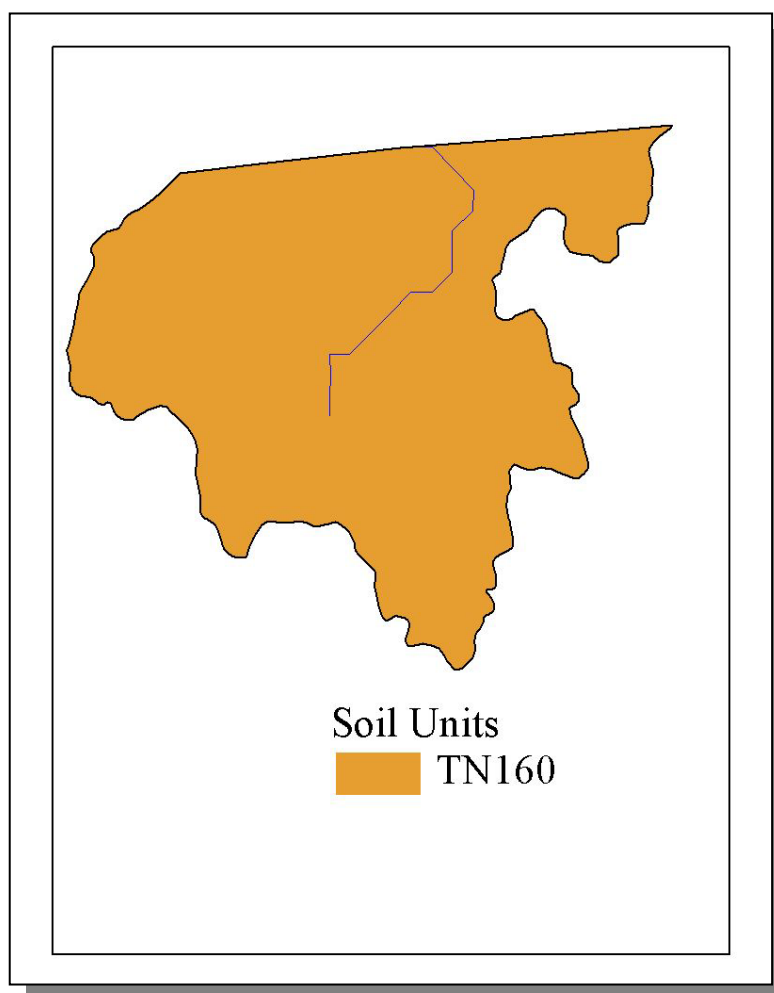


Figure 4-35. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010504.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-27. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010504. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Campbell	35,079	37,878	39,854	0.62	218	235	247	13.3
Claiborne	26,137	28,963	29,862	0.3	78	87	89	14.1
Total	61,216	66,841	69,716		296	322	336	13.5

Table 4-28. Population Estimates in Subwatershed 051301010504.

4.2.B.iv.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.B.iv.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS	
Beef Cow	Cattle
<5	5

Table 4-29. Summary of Livestock Count Estimates in Subwatershed 051301010504.
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Campbell	4,083	7,684	66	8	14	0
Claiborne	18,697	36,566	1,082	420	0	165

Table 4-30. Summary of Livestock Count Estimates in Campbell and Claiborne Counties.
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6
Claiborne	167.6	167.6	2.6	12.1

Table 4-31. Forest Acreage and Annual Removal Rates (1987-1994) in Campbell and Claiborne Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.32
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	1.93
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crop	3.33
Farmsteads and Ranch Headquarters	0.18

Table 4-32. Annual Estimated Total Soil Loss in Subwatershed 051301010504.

4.2.B.v. 051301010505 (Mud Creek).

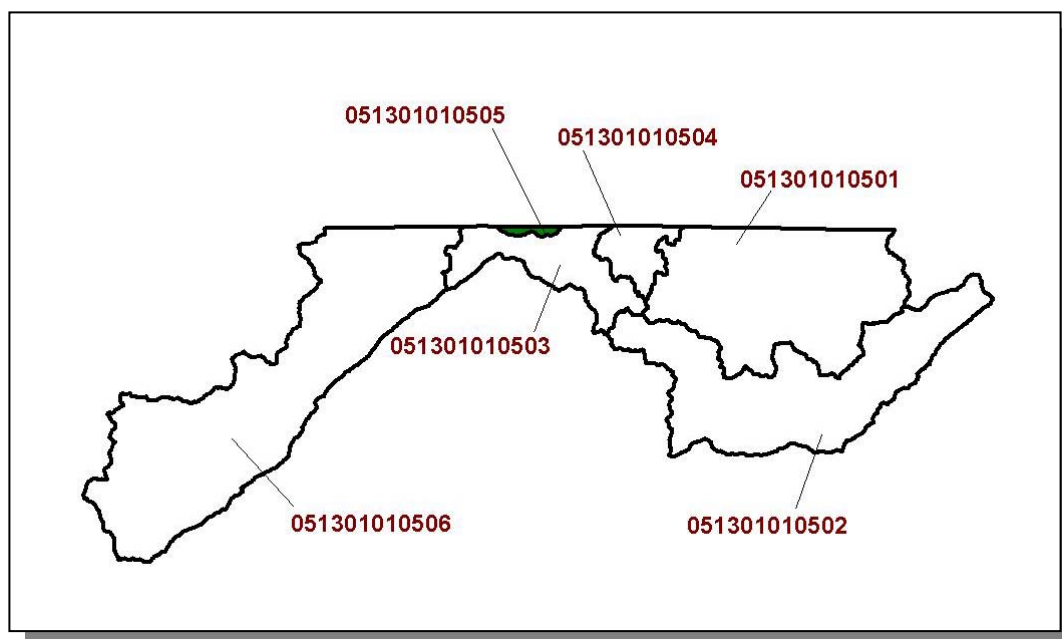


Figure 4-36. Location of Subwatershed 051301010505. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

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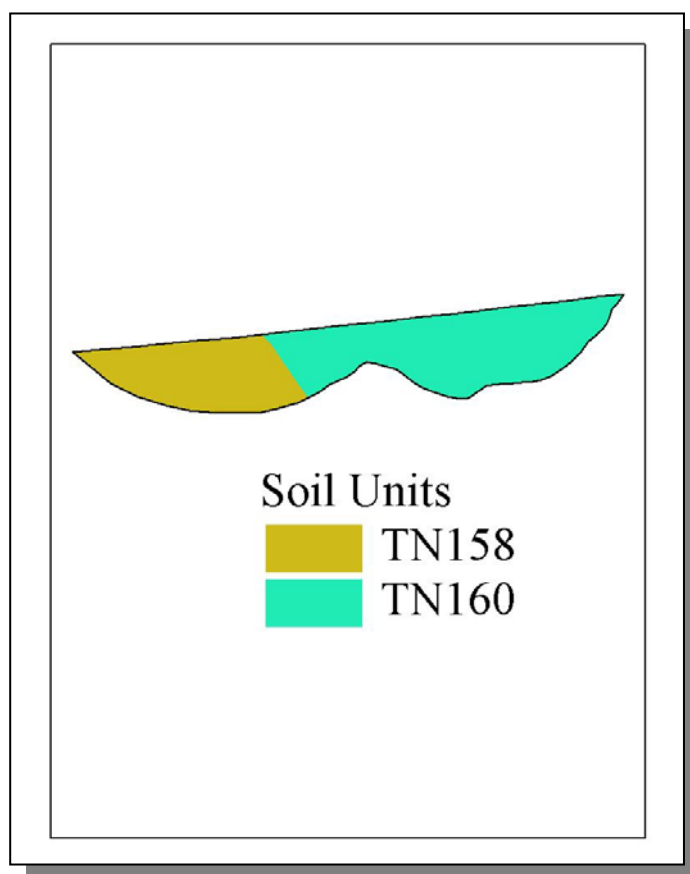


Figure 4-37. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010505.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN160	22.00	C	1.89	5.14	Silty Loam	0.29
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-33. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010505. The definition of "Hydrologic Group" is provided in Appendix IV.

	COUNTY POPULATION				ESTIMATED POPULATION IN WATERSHED			
County	1990	1997	2000	Portion of Watershed (%)	1990	1997	2000	% Change (1990-2000)
Campbell	35,079	37,878	39,854	0.11	39	42	44	12.8

Table 4-34. Population Estimates in Subwatershed 051301010505.

4.2.v.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.B.v.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS	
Beef Cow	Cattle
12	23

Table 4-35. Summary of Livestock Count Estimates in Subwatershed 051301010505. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS					
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs
Campbell	4,083	7,684	66	8	14

Table 4-36. Summary of Livestock Count Estimates in Campbell County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6

Table 4-37. Forest Acreage and Annual Removal Rates (1987-1994) in Subwatershed 051301010505.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.73
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	2.74
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33
Farmsteads and Ranch Headquarters	0.07

Table 4-38. Annual Estimated Total Soil Loss in Subwatershed 051301010505.

4.2.B.vi. 051301010506 (Elk Fork Creek).

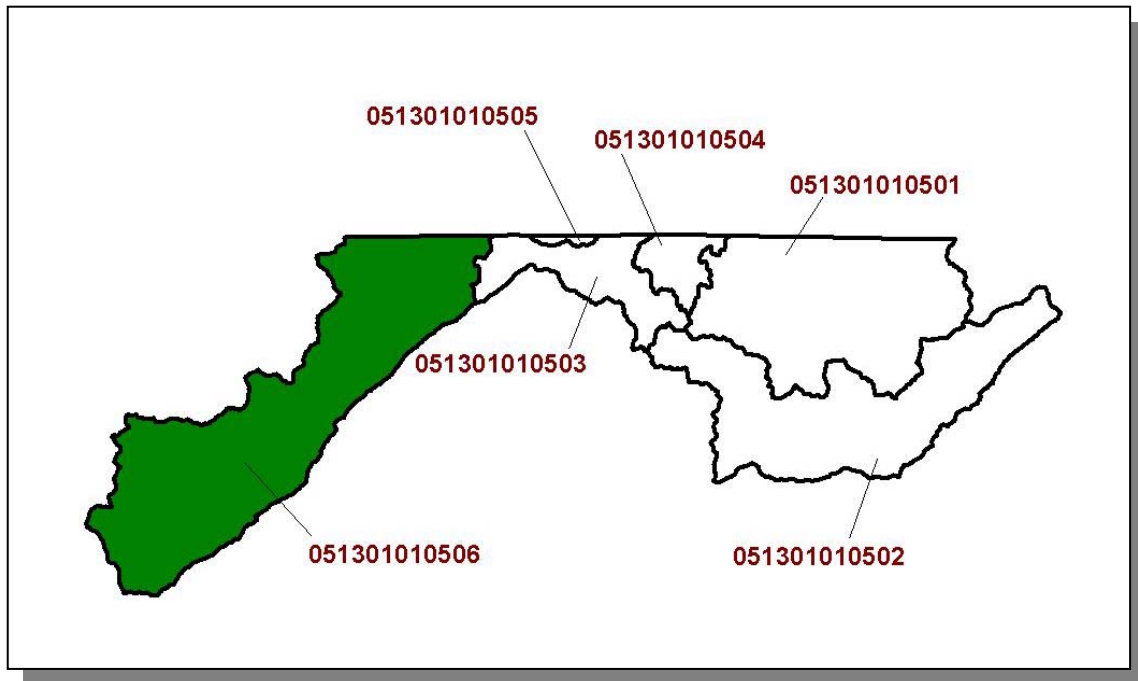


Figure 4-38. Location of Subwatershed 051301010506. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

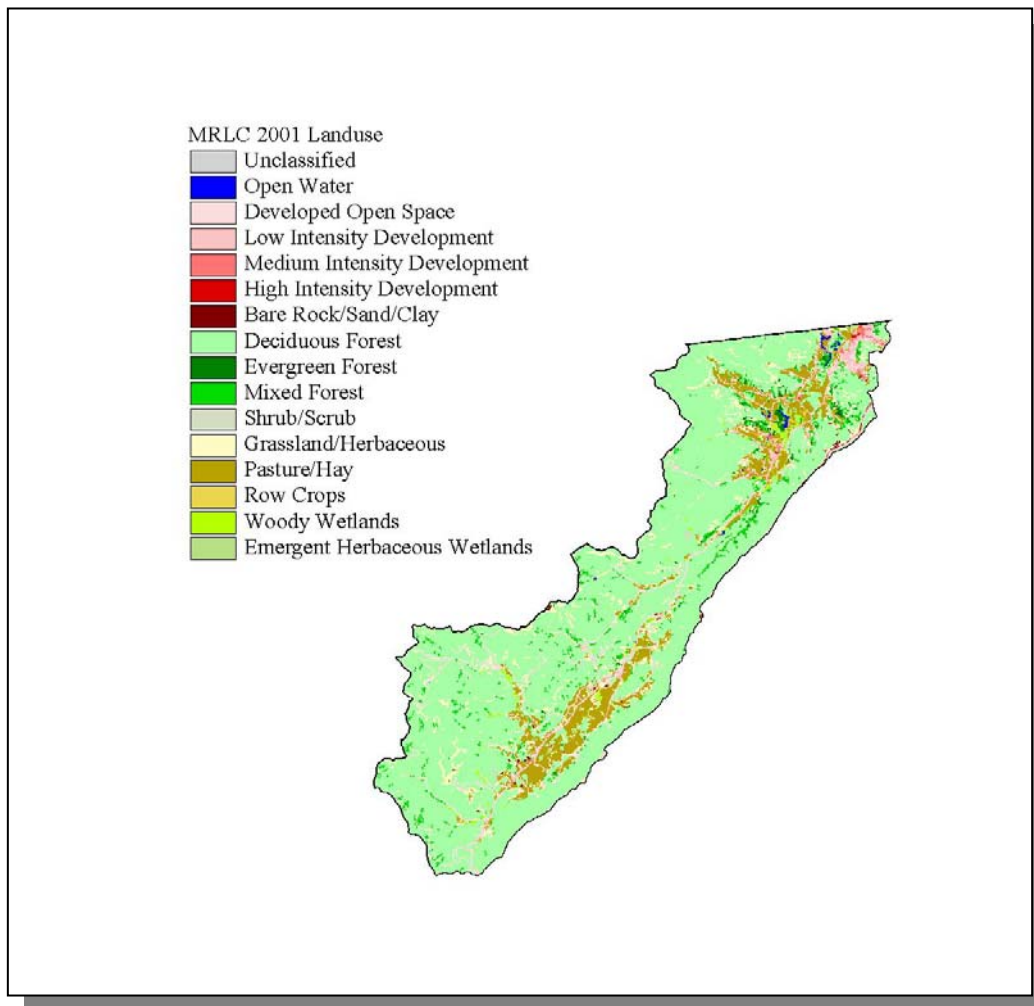


Figure 4-39. Illustration of Land Use Distribution in Subwatershed 051301010506.

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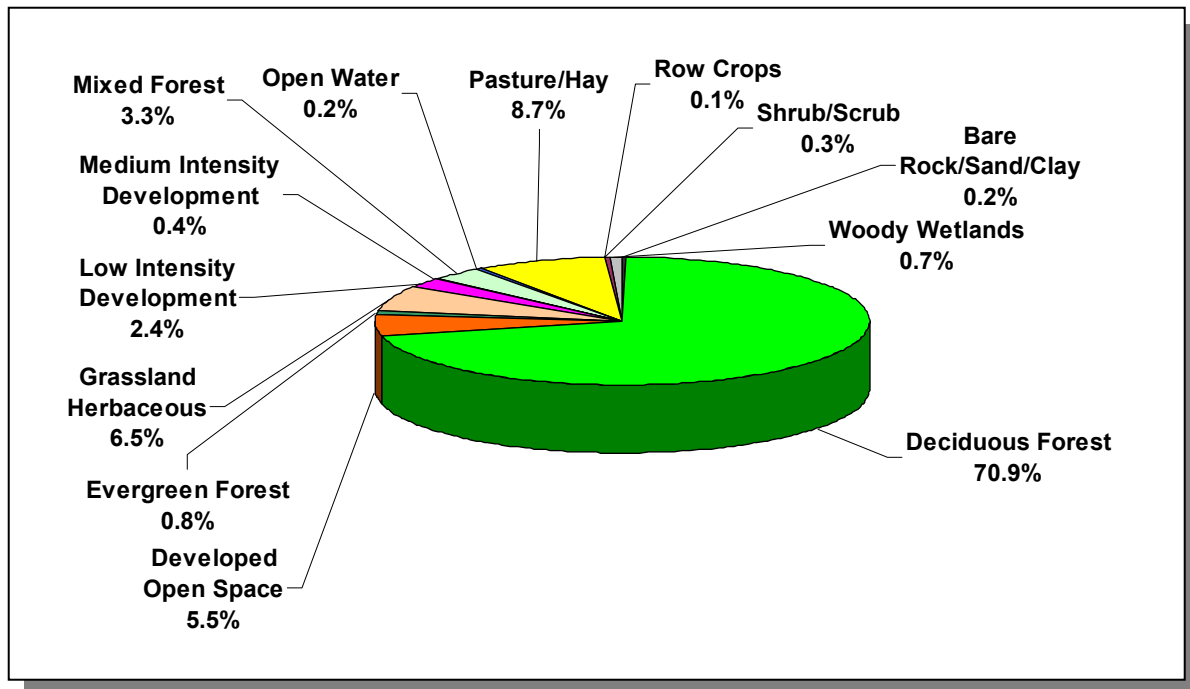


Figure 4-40. Land Use Distribution in Subwatershed 051301010506. More information is provided in Appendix IV.

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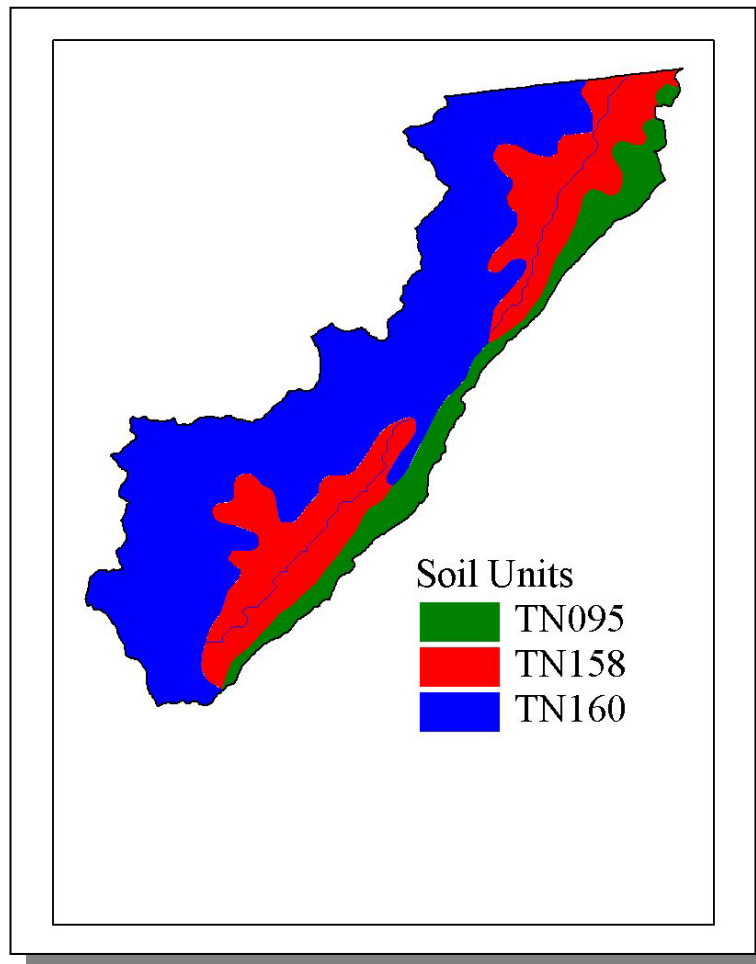


Figure 4-41. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010506.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN158	22.00	C	1.89	5.14	Silty Loam	0.29
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-39. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010506. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Campbell	35,079	37,878	39,854	10.5	3,684	3,978	4,186	13.6
Scott	18,358	19,816	21,127	0.3	55	59	63	14.5
Total	53,437	57,694	60,981		3,739	4,037	4,249	13.6

Table 4-40. Population Estimates in Subwatershed 051301010506.

Populated Place	County	Population	NUMBER OF HOUSING UNITS			
			Total	Public Sewer	Septic Tank	Other
Jellico	Campbell	2,470	1,107	1,026	64	17

Table 4-41. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051301010506.

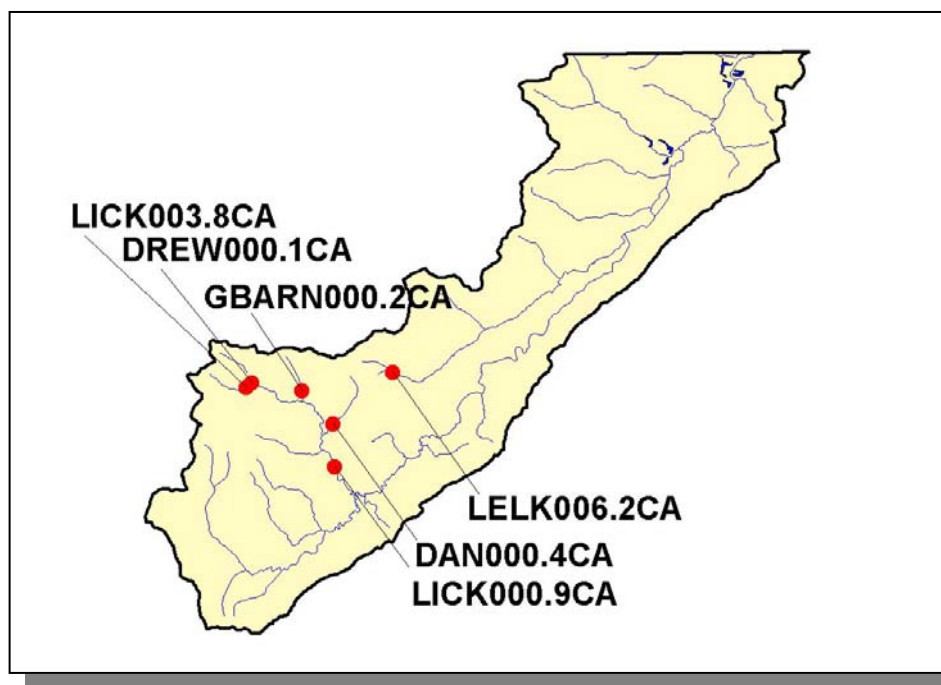


Figure 4-42. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301010506. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.B.vi.a. Point Source Contributions.

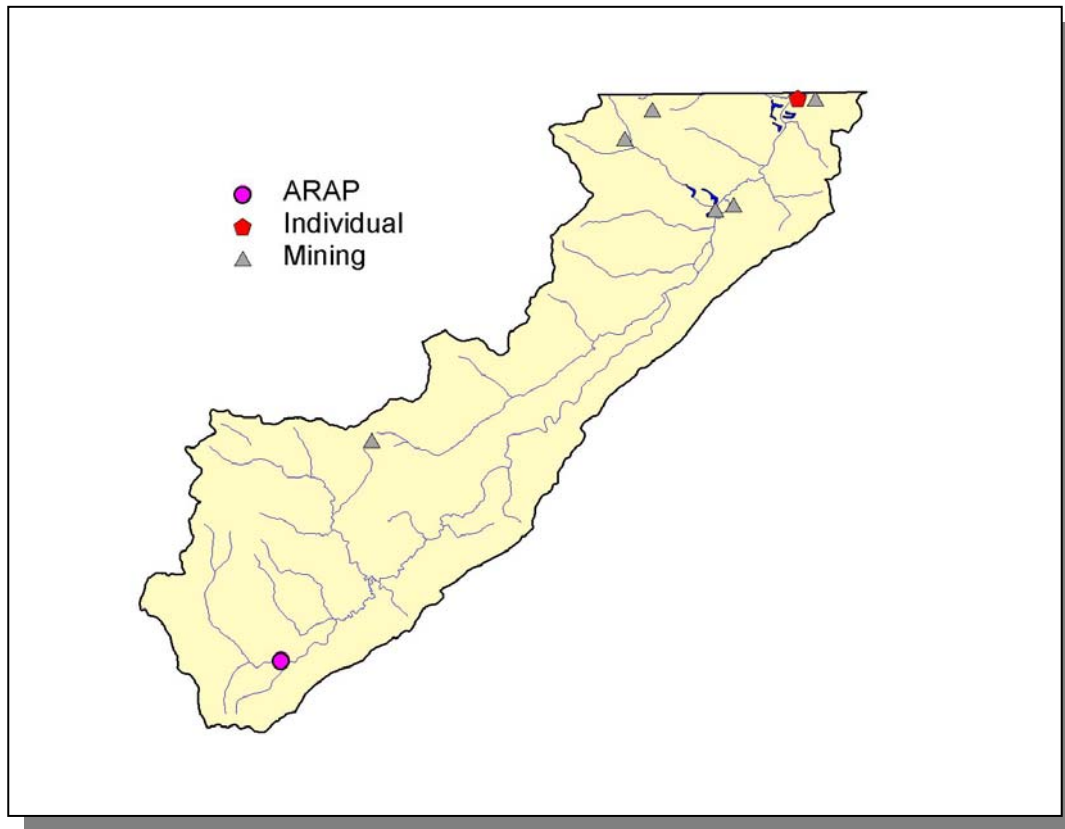


Figure 4-43. Location of Permits Issued in Subwatershed 051301010506. More information, including the names of facilities, is provided in Appendix IV.



Figure 4-44. Location of Active NPDES Sites in Subwatershed 051301010506. More information, including the names of facilities, is provided in Appendix IV.

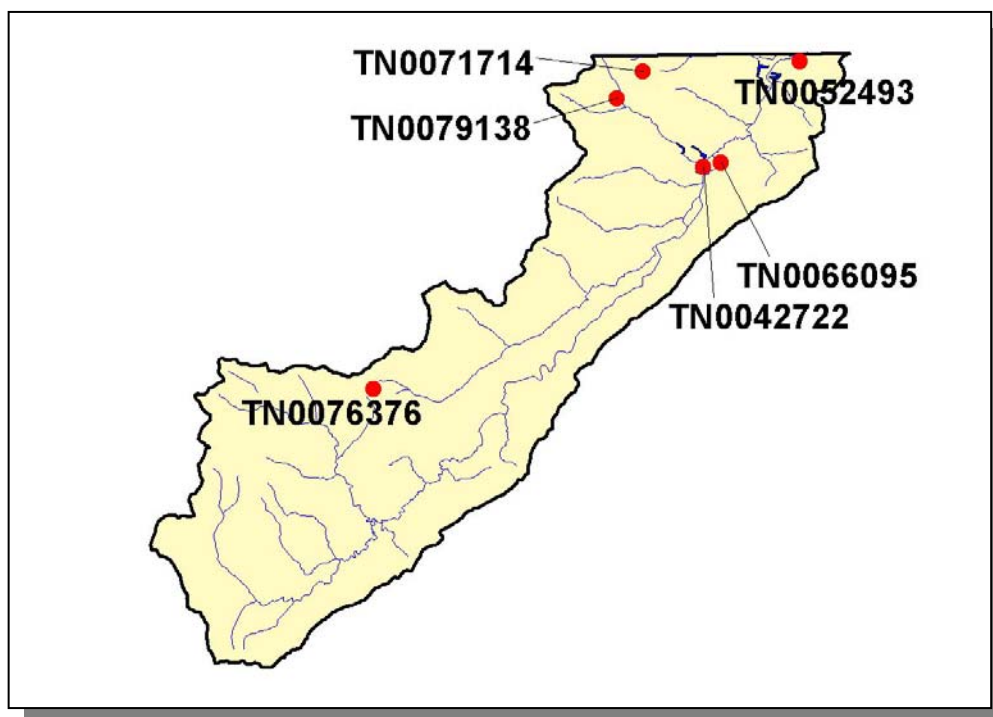


Figure 4-45. Location of Active Mining Sites in Subwatershed 051301010506. More information, including the names of mining operations, is provided in Appendix IV.

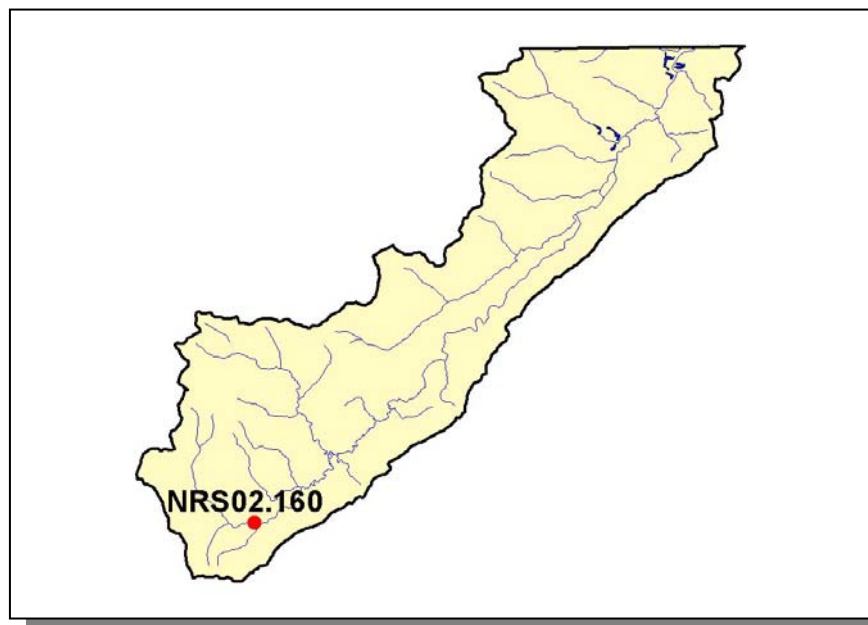


Figure 4-46. Location of Aquatic Resource Alteration Permit (ARAP) Sites (Individual Permits) in Subwatershed 051301010506. More information is provided in Appendix IV.

4.2.H.ii.a. Dischargers to Water Bodies Listed on the 2004 303(d) List

There is one NPDES facility discharging to water bodies listed on the 2004 303(d) list in Subwatershed 051301010506:

- TN0022861 (Jellico STP) discharges to Elk Fork Creek @ RM 2.1



Figure 4-47. Location of NPDES Dischargers to Water Bodies Listed on the 2004 303(d) List in Subwatershed 051301010506. More information, including the names of facilities, is provided in Appendix IV.

PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0022861			0.17		0.5

Table 4-42. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051301010506. Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

PERMIT #	CBOD ₅	FECAL COLIFORM	TRC	TSS	SETTLEABLE SOLIDS	DO	pH
TN0022861	X	X	X	X	X	X	X

Table 4-43. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051301010506. CBOD₅, Carbonaceous Biochemical Oxygen Demand (5-Day); TRC, Total Residual Chlorine; TSS, Total Suspended Solids.

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4.2.B.vi.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs
503	948	8	1	2,768	2

Table 4-44. Summary of Livestock Count Estimates in Subwatershed 051301010506. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS							
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
Campbell	4,083	7,684	66	8	0	14	0
Scott	2,177	4,447	216	196	1,989,506	17	74

Table 4-45. Summary of Livestock Count Estimates in Campbell and Scott Counties. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6
Scott	300.3	300.3	5.5	21.4

Table 4-46. Forest Acreage and Annual Removal Rates (1987-1994) in Campbell and Scott Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.69
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	2.68
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33
Farmsteads and Ranch Headquarters	0.07

Table 4-47. Annual Estimated Total Soil Loss in Subwatershed 051301010506.

4.2.C. 0513010106.

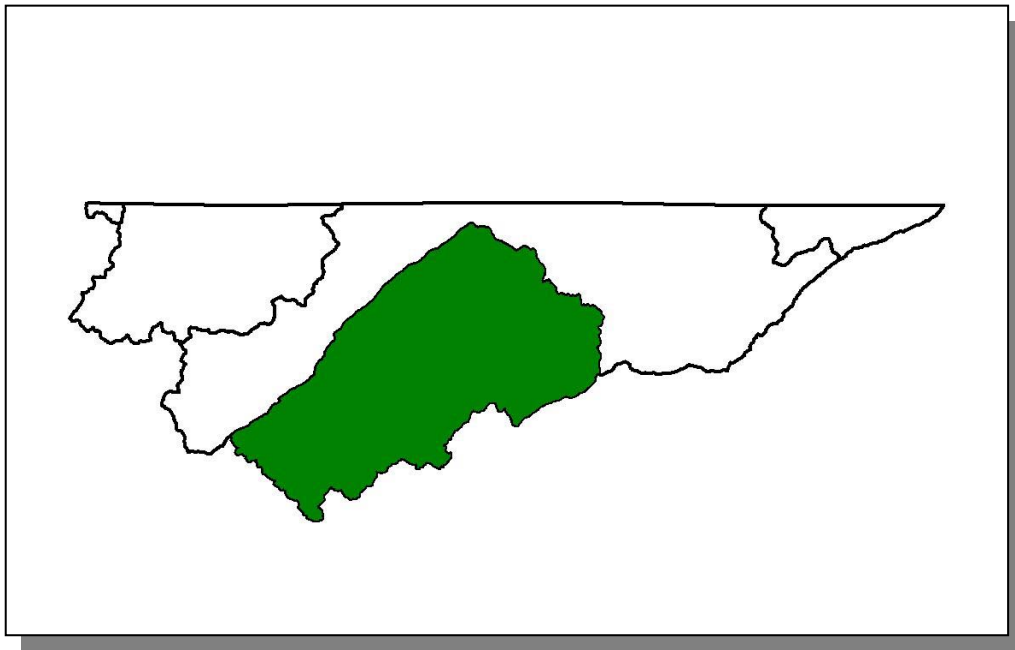


Figure 4-48. Location of Subwatershed 0513010106. All Clear Fork of the Cumberland River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

4.2.C.i. 051301010601 (Hickory Creek).

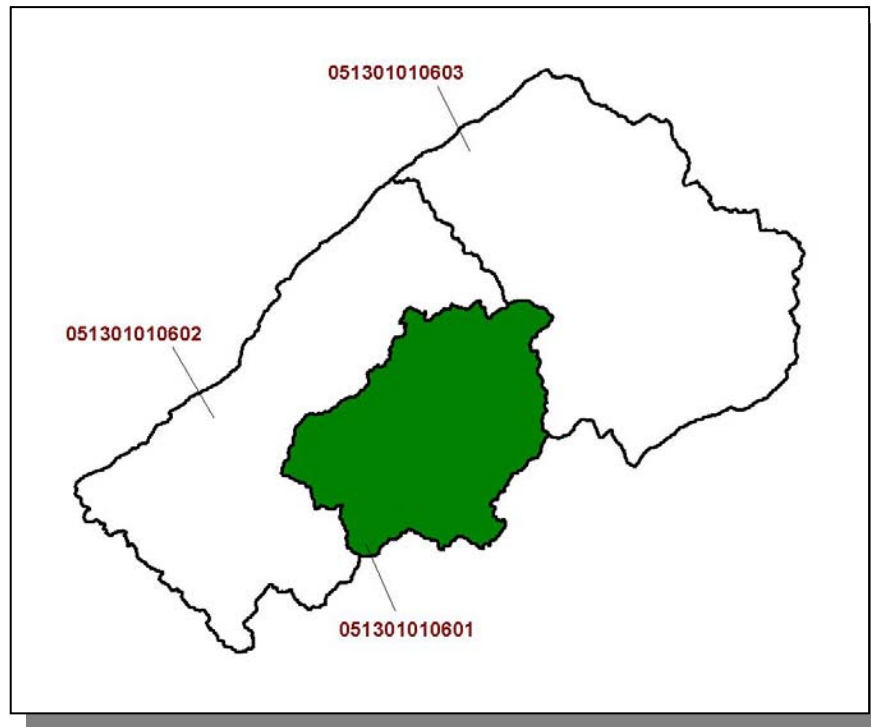


Figure 4-49. Location of Subwatershed 051301010601. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

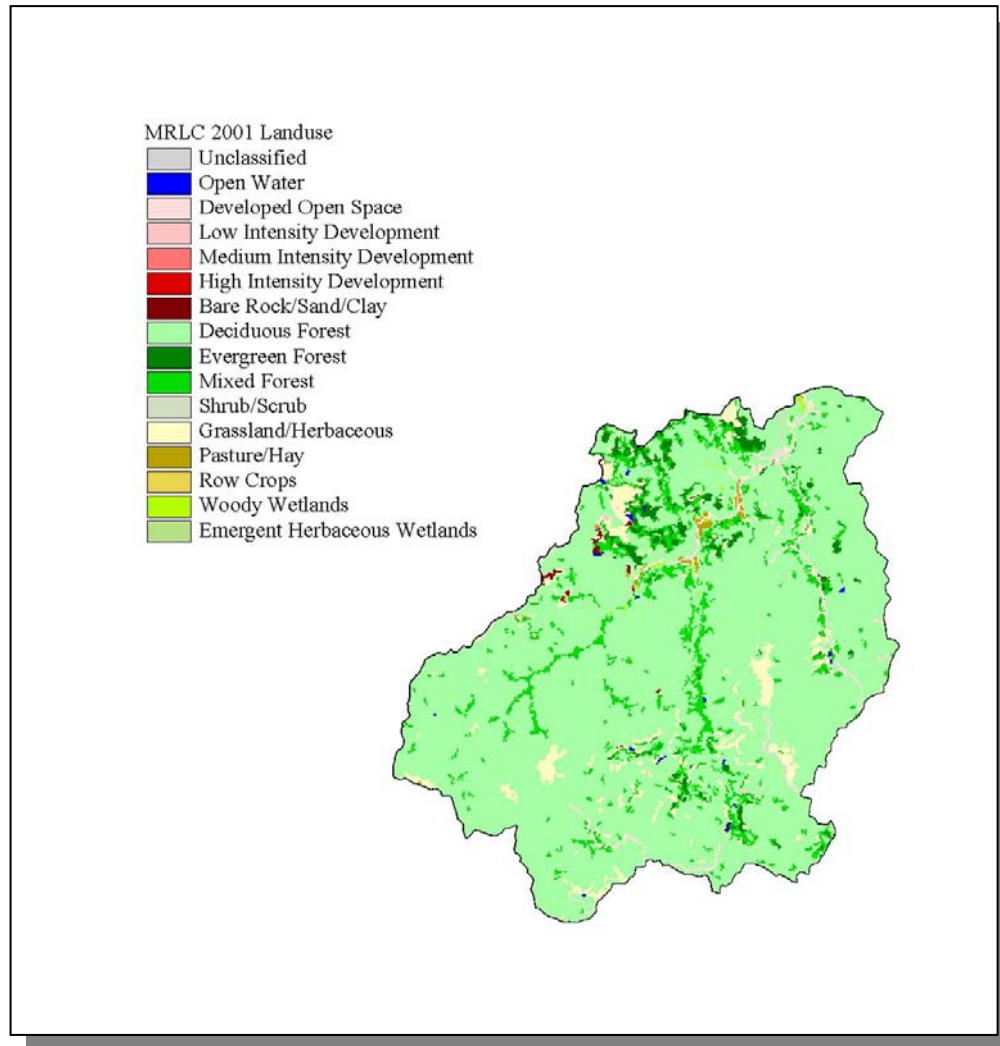


Figure 4-50. Illustration of Land Use Distribution in Subwatershed 051301010601.

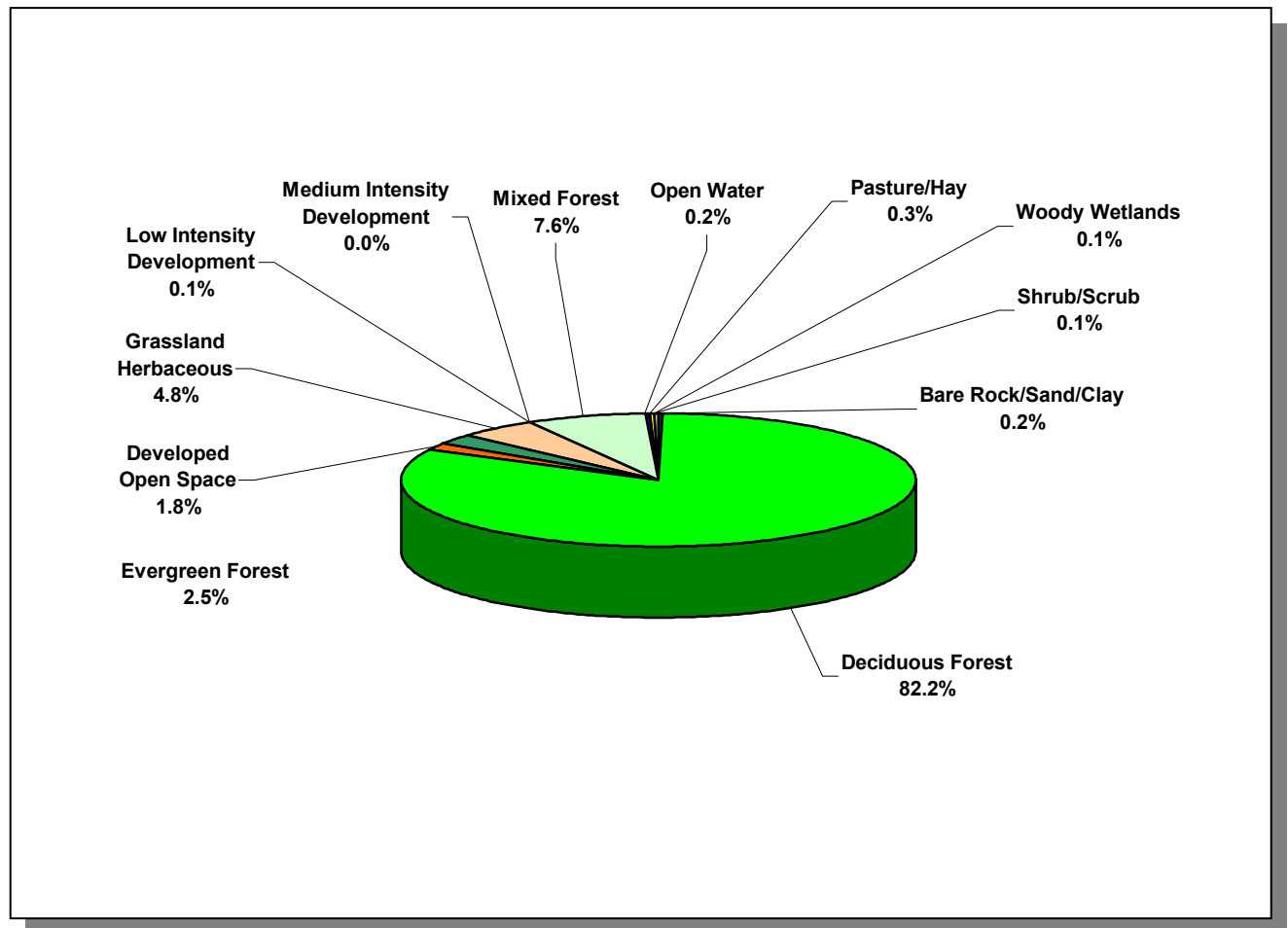


Figure 4-51. Land Use Distribution in Subwatershed 051301010601. More information is provided in Appendix IV.

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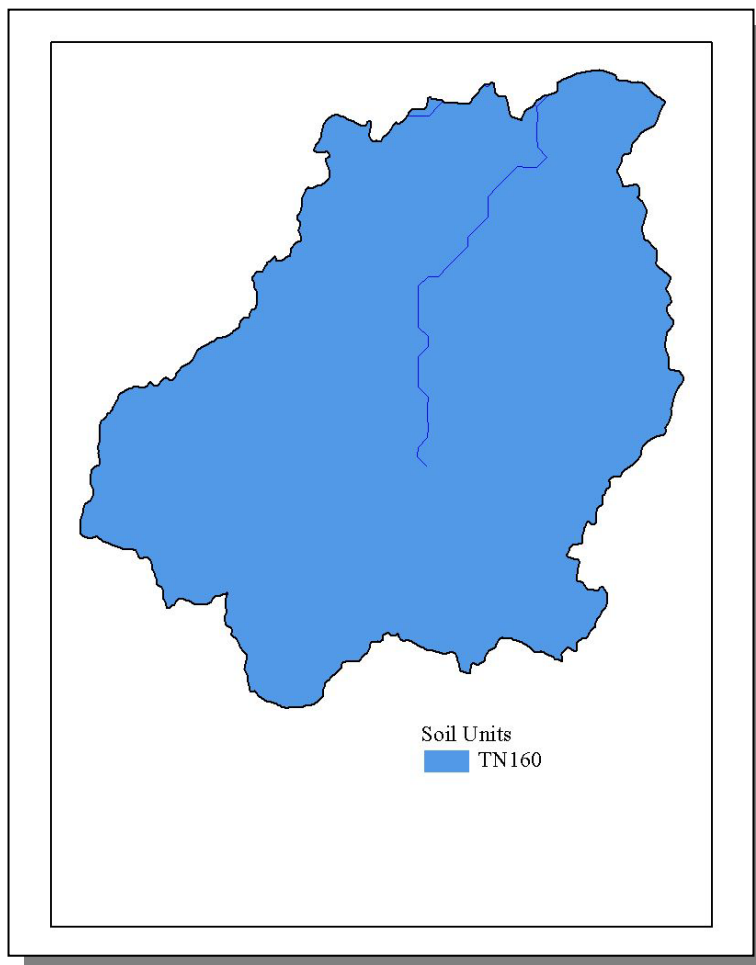


Figure 4-52. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010601.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-48. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010601. The definition of "Hydrologic Group" is provided in Appendix IV.

	COUNTY POPULATION				ESTIMATED POPULATION IN WATERSHED			
County	1990	1997	2000	Portion of Watershed (%)	1990	1997	2000	% Change (1990-2000)
Campbell	35,079	37,878	39,854	5.13	1,800	1,944	2,045	13.6

Table 4-49. Population Estimates in Subwatershed 051301010601.

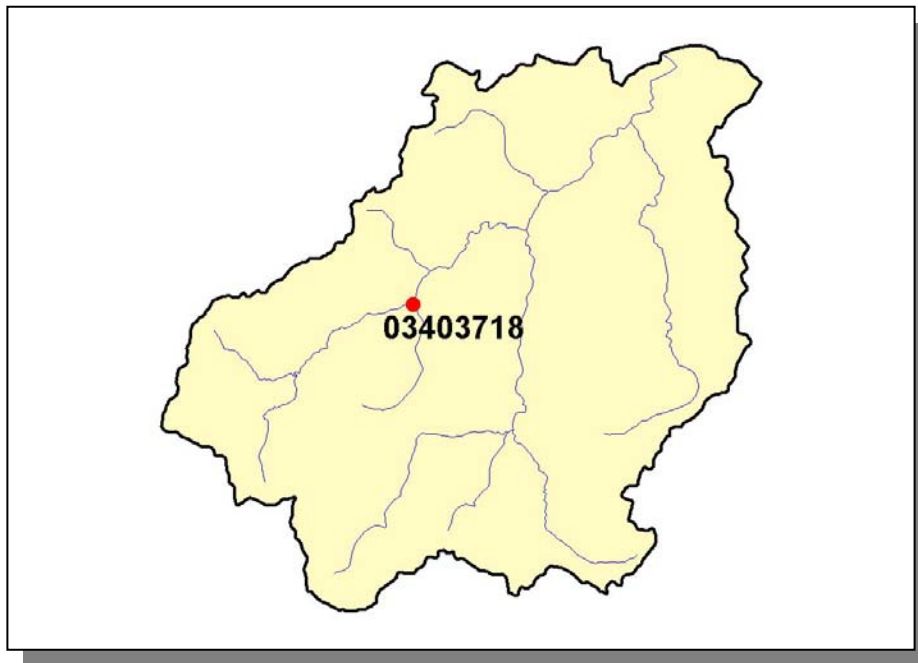


Figure 4-53. Location of Historical Streamflow Data Collection Sites in Subwatershed 051301010601. More information is provided in Appendix IV.

4.2.C.i.a. Point Source Contributions.

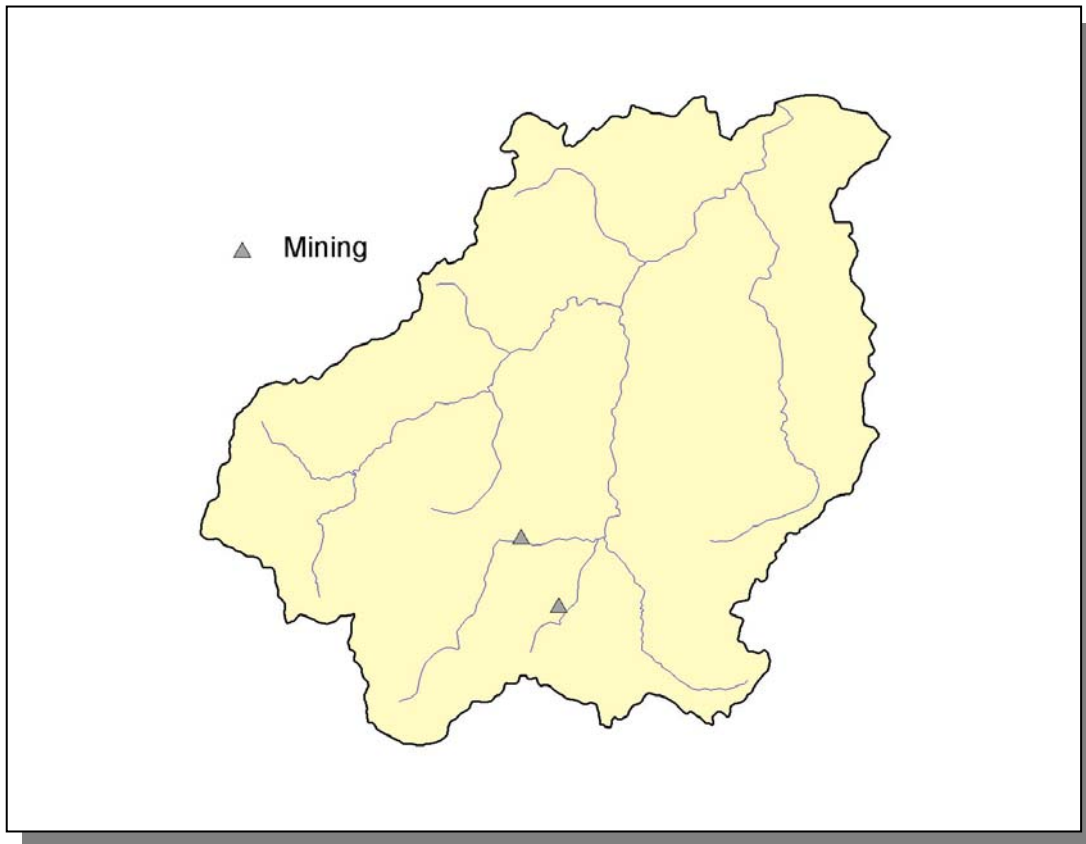


Figure 4-54. Location of Permits Issued in Subwatershed 051301010601. More information, including the names of facilities, is provided in Appendix IV.

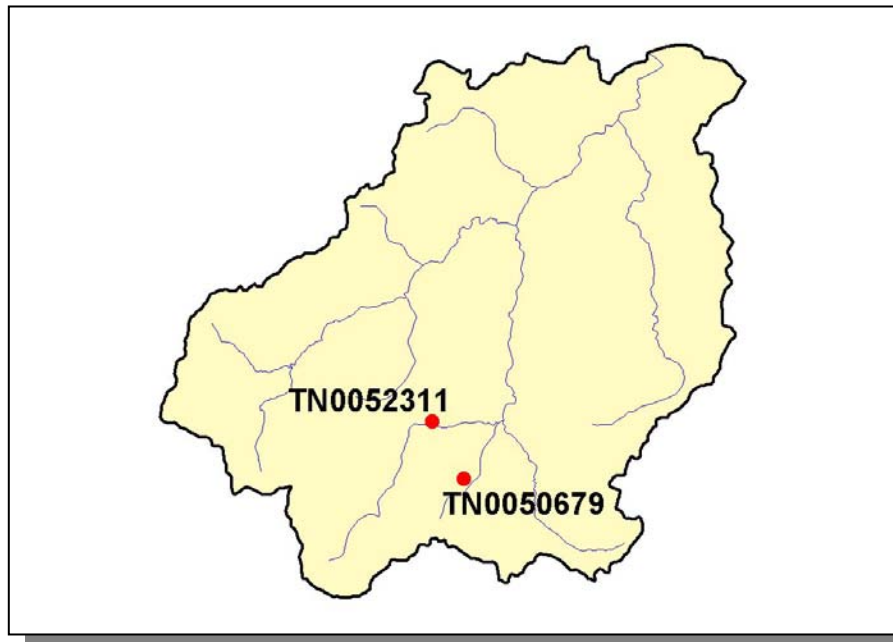


Figure 4-55. Location of Active Mining Sites in Subwatershed 051301010601. More information, including the names of mining operations, is provided in Appendix IV.

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4.2.C.i.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS	
Beef Cow	Cattle
17	32

Table 4-50. Summary of Livestock Count Estimates in Subwatershed 051301010601. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves.

LIVESTOCK COUNTS					
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs
Campbell	4,083	7,684	66	8	14

Table 4-51. Summary of Livestock Count Estimates in Campbell County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6

Table 4-52. Forest Acreage and Annual Removal Rates (1987-1994) in Subwatershed 051301010601.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.73
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	2.74
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33
Other Vegetable and Truck Crops	3.33
Farmsteads and Ranch Headquarters	0.07

Table 4-53. Annual Estimated Total Soil Loss in Subwatershed 051301010601.

4.2.C.ii. 051301010602 (Stinking Creek).

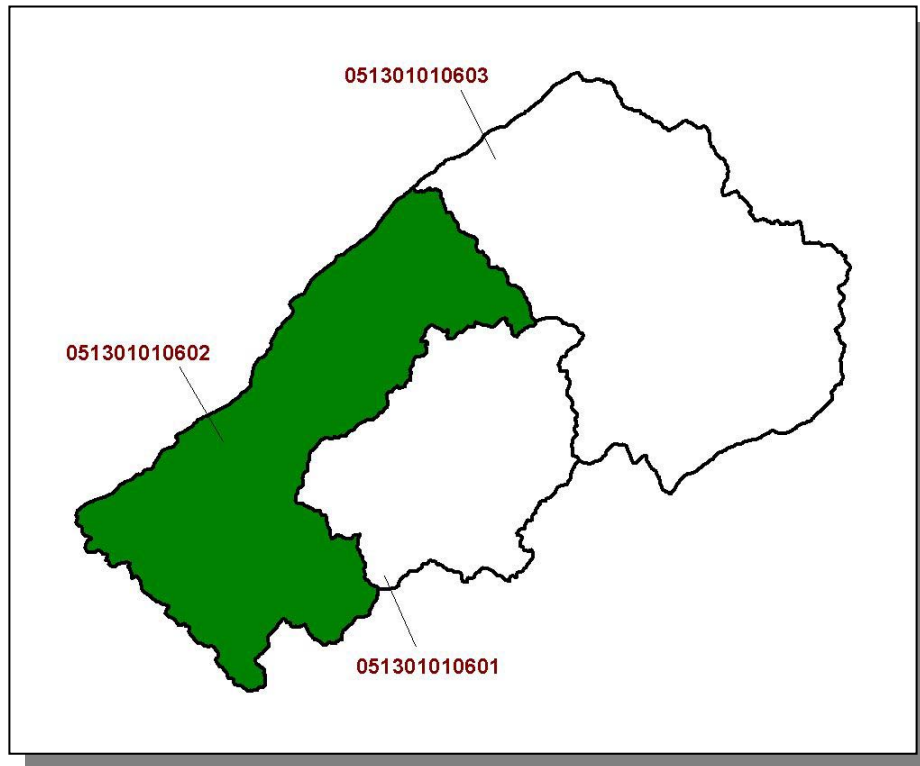


Figure 4-56. Location of Subwatershed 051301010602. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

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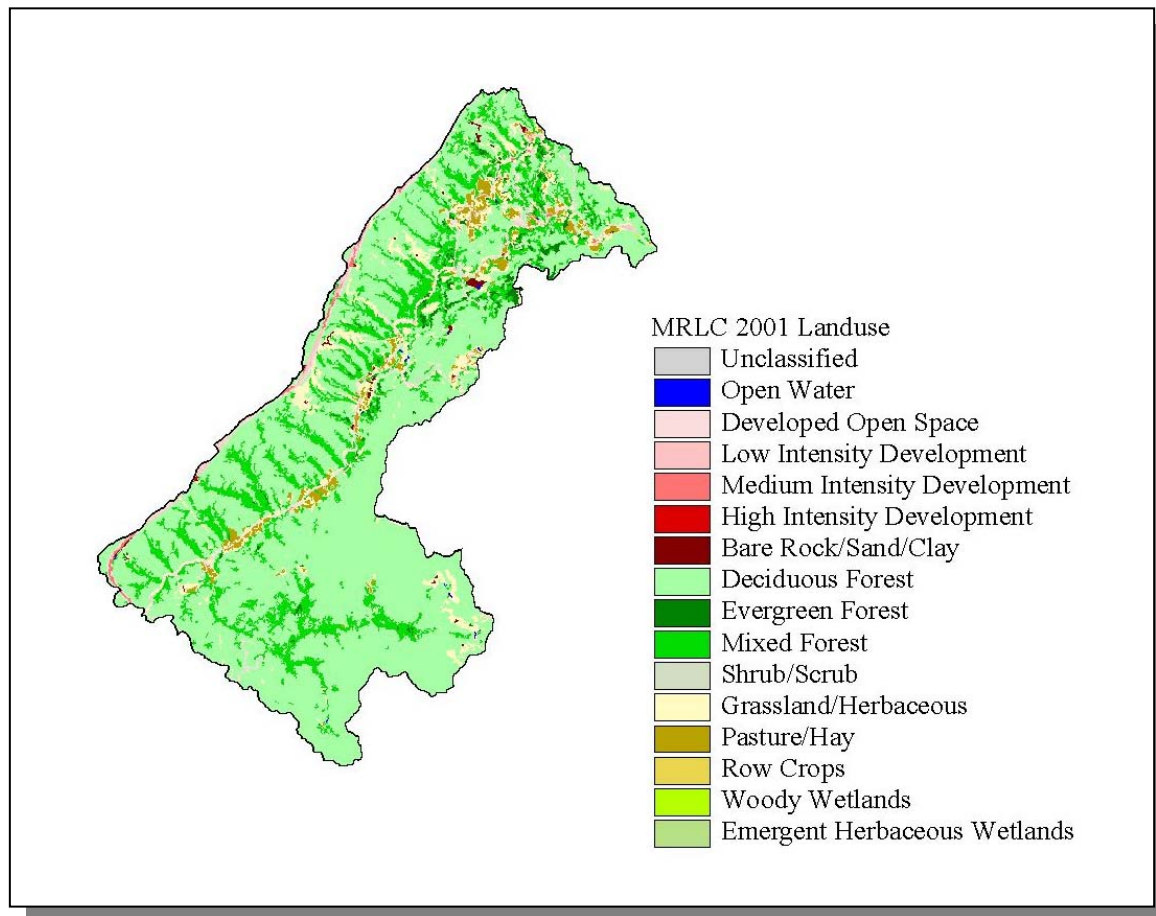


Figure 4-57. Illustration of Land Use Distribution in Subwatershed 051301010602.

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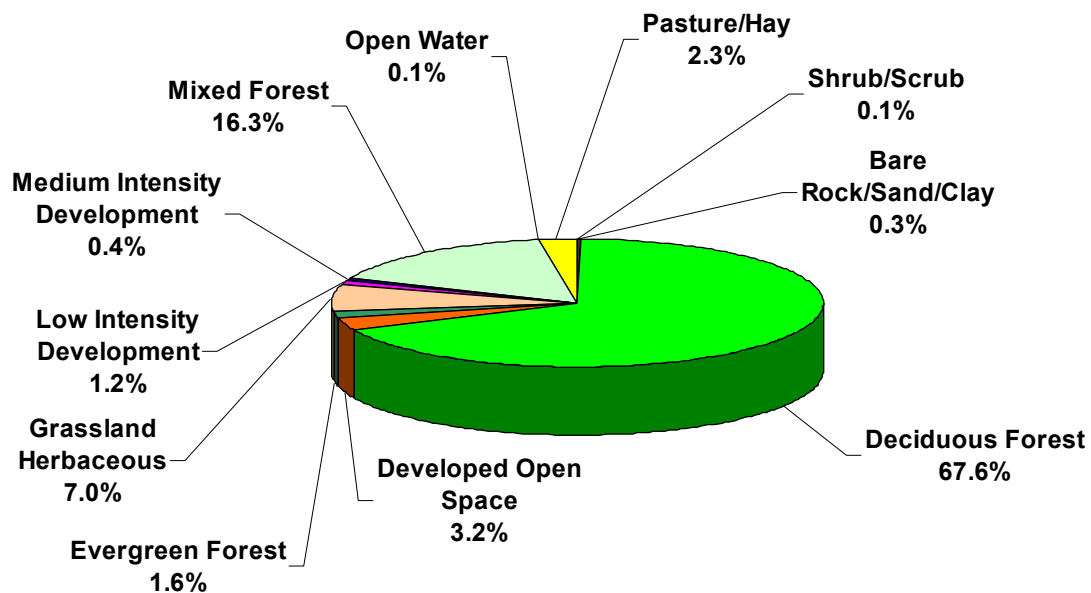


Figure 4-58. Land Use Distribution in Subwatershed 051301010602. More information is provided in Appendix IV.

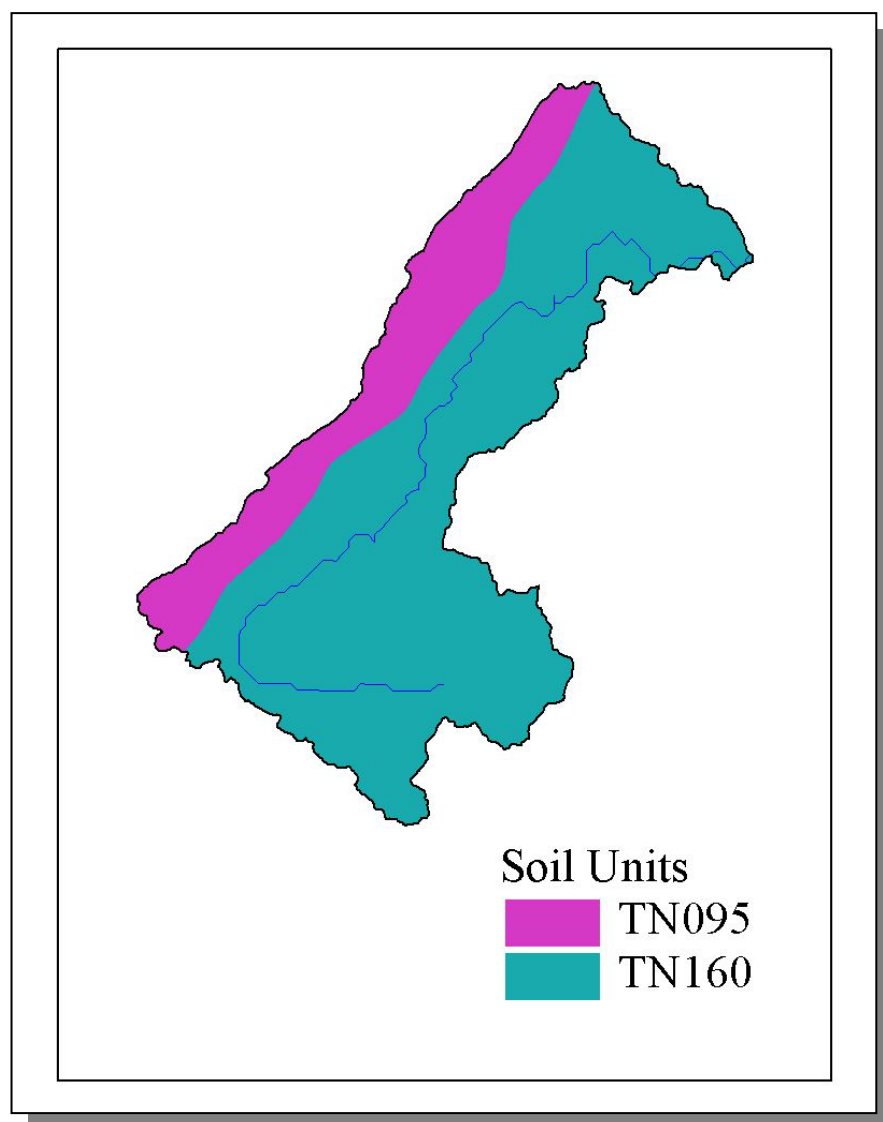


Figure 4-59. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010602.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-54. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010602. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Campbell	35,079	37,878	39,854	8.39	2,944	3,179	3,345	13.6

Table 4-55. Population Estimates in Subwatershed 051301010602.

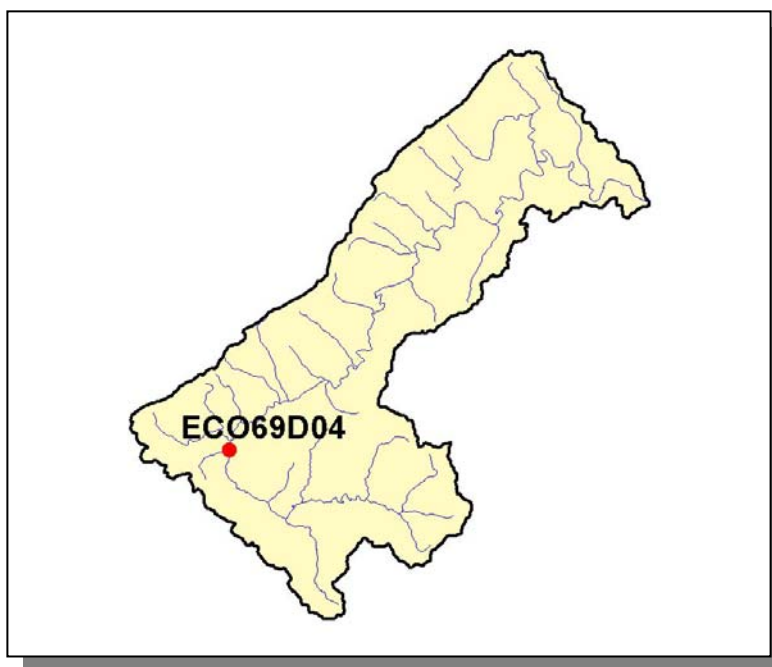


Figure 4-60. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301010602. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.C.ii.a. Point Source Contributions.



Figure 4-61. Location of Permits Issued in Subwatershed 051301010602. More information, including the names of facilities, is provided in Appendix IV.

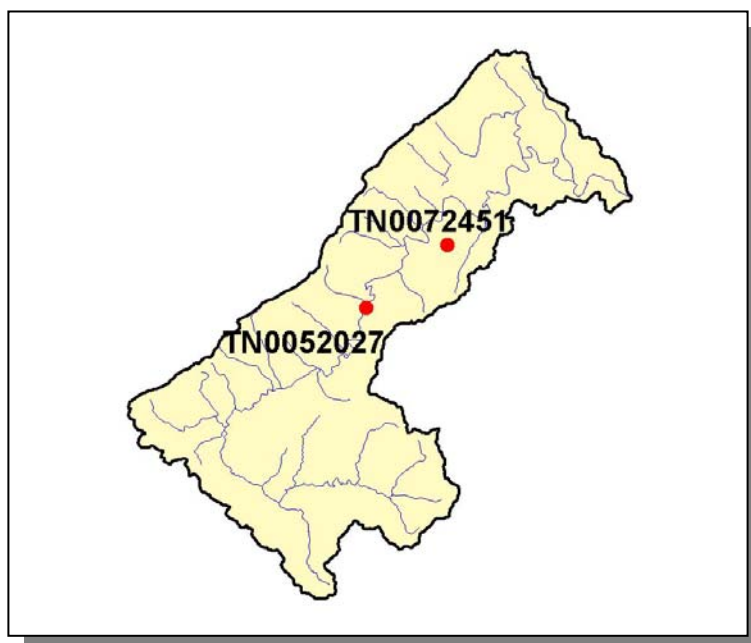


Figure 4-62. Location of Active Mining Sites in Subwatershed 051301010602. More information, including the names of mining operations, is provided in Appendix IV.

4.2.C.ii.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS			
Beef Cow	Cattle	Milk Cow	Hogs
152	286	<5	<5

Table 4-56. Summary of Livestock Count Estimates in Subwatershed 051301010602. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves.

LIVESTOCK COUNTS					
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs
Campbell	4,083	7,684	66	8	14

Table 4-57. Summary of Livestock Count Estimates in Campbell County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

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County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6

Table 4-58. Forest Acreage and Annual Removal Rates (1987-1994) in Subwatershed 051301010602.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.73
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	2.74
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33
Farmsteads and Ranch Headquarters	0.07

Table 4-59. Annual Estimated Total Soil Loss in Subwatershed 051301010602.

4.2.C.iii. 051301010603 (Hickory Creek).

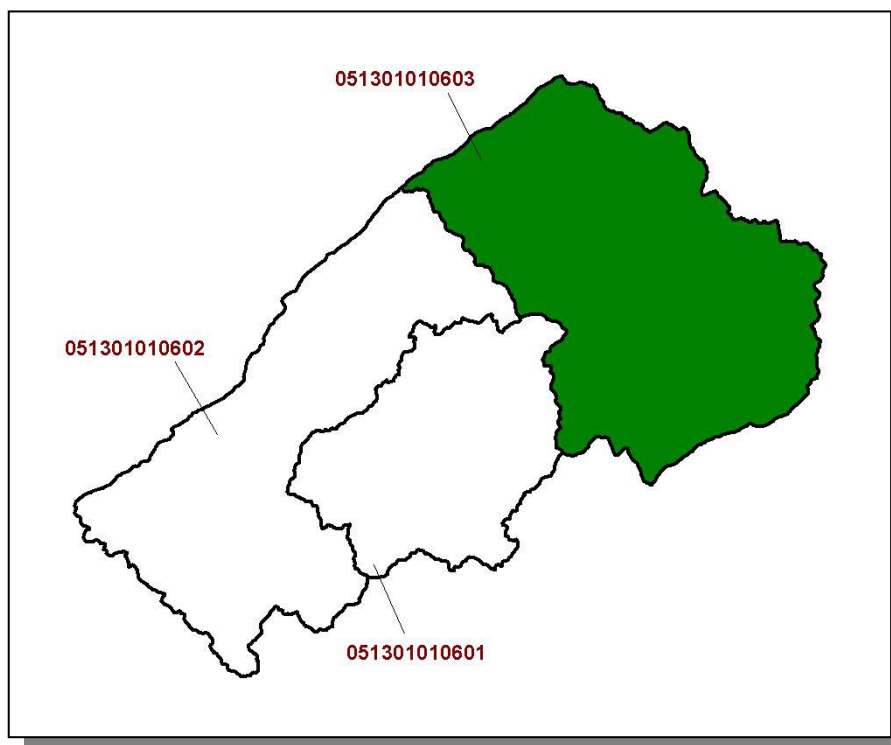


Figure 4-63. Location of Subwatershed 051301010603. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

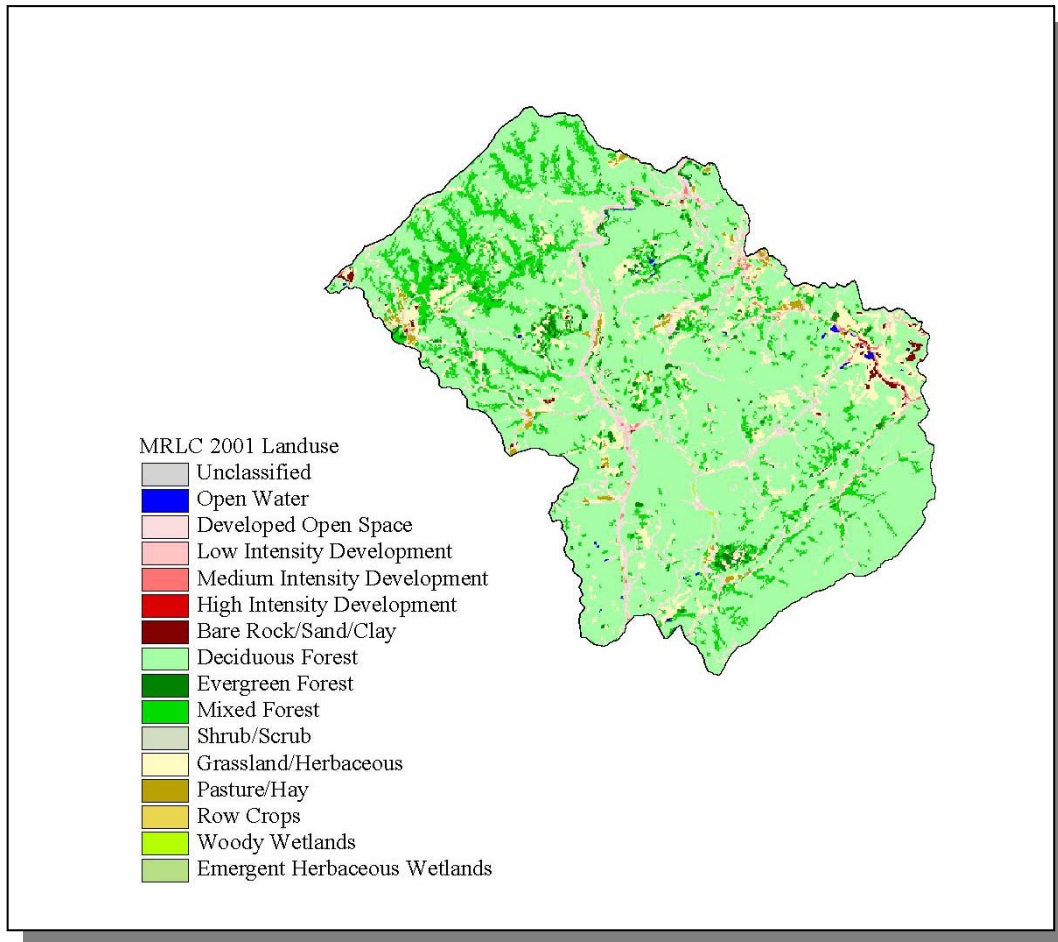


Figure 4-64. Illustration of Land Use Distribution in Subwatershed 051301010603.

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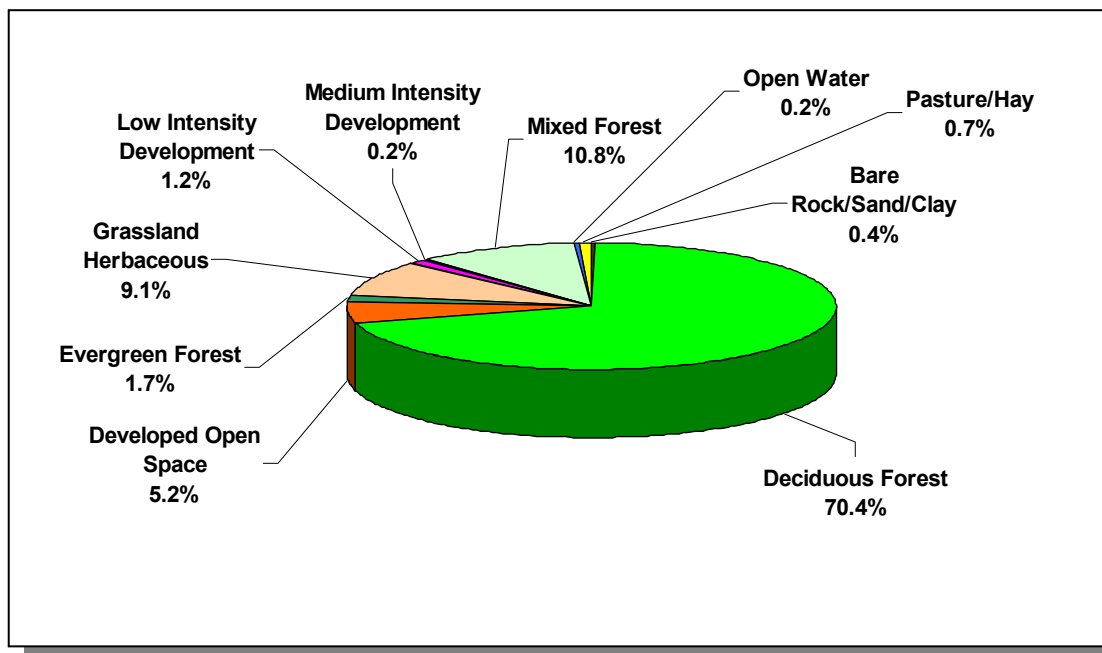


Figure 4-65. Land Use Distribution in Subwatershed 051301010603. More information is provided in Appendix IV.

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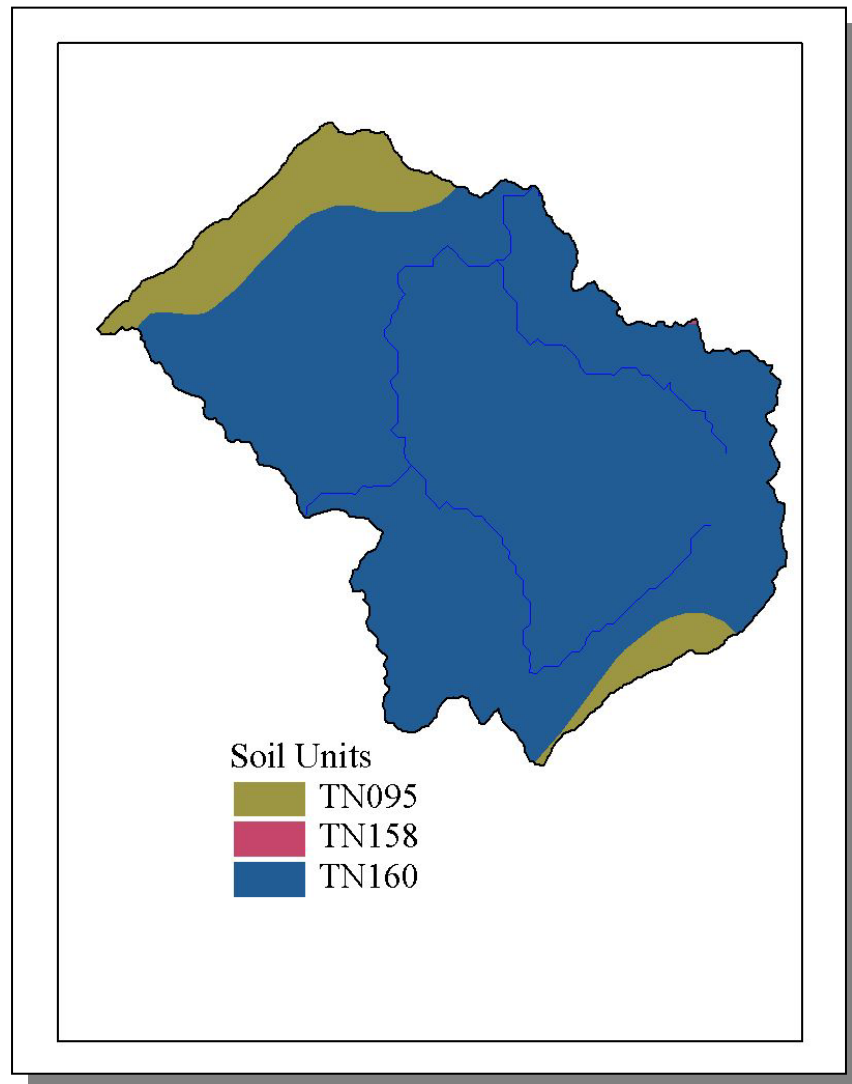


Figure 4-66. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010603.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN095	0.00	B	2.35	5.12	Loam	0.31
TN158	22.00	C	1.89	5.14	Silty Loam	0.29
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-60. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010603. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Campbell	35,079	37,878	39,854	10.15	3,561	3,845	4,046	13.6

Table 4-61. Population Estimates in Subwatershed 051301010603.

Populated Place	County	Population	NUMBER OF HOUSING UNITS			
			Total	Public Sewer	Septic Tank	Other
Jellico	Campbell	2,470	1,107	1,026	64	17

Table 4-62. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051301010603.



Figure 4-67. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301010603. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

4.2.C.iii.a. Point Source Contributions.

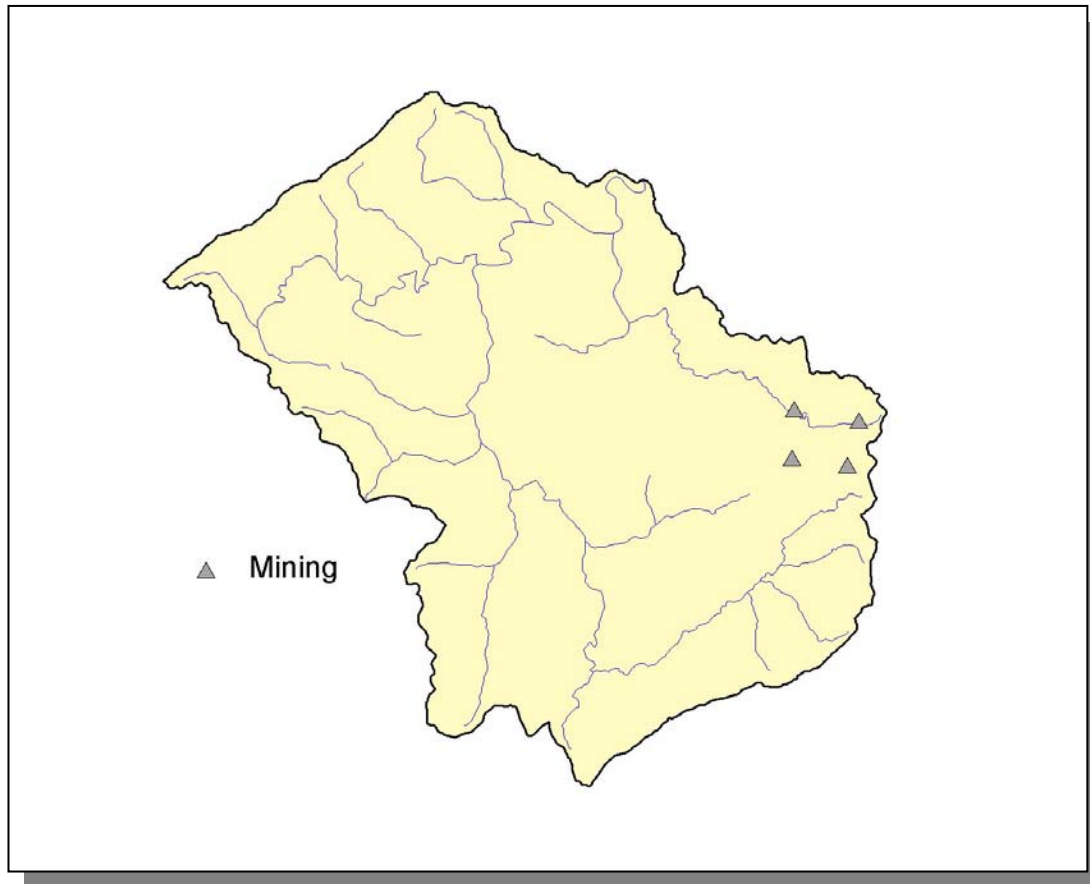


Figure 4-68. Location of Permits Issued in Subwatershed 051301010603. More information, including the names of facilities, is provided in Appendix IV.

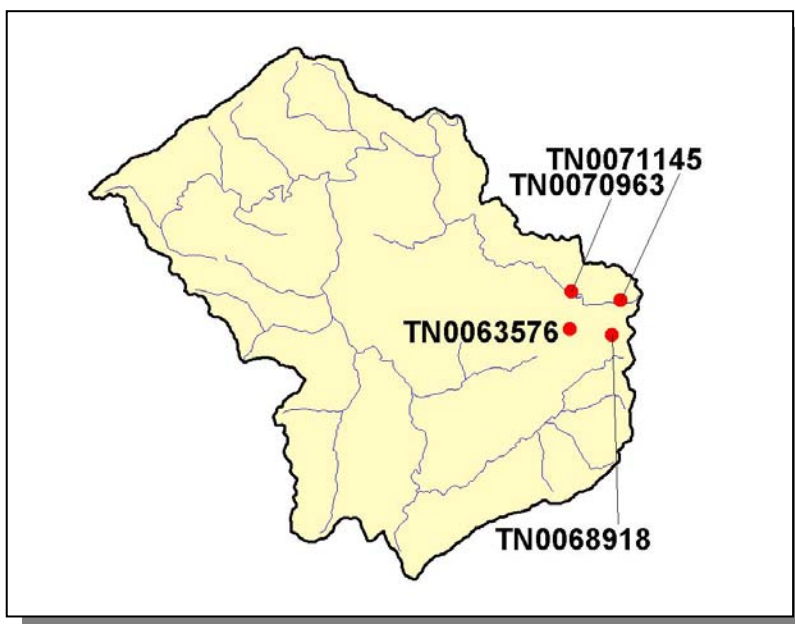


Figure 4-69. Location of Active Mining Sites in Subwatershed 051301010603. More information, including the names of mining operations, is provided in Appendix IV.

4.2.C.iii.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS		
Beef Cow	Cattle	Milk Cow
70	132	<5

Table 4-63. Summary of Livestock Count Estimates in Subwatershed 051301010603. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves.

LIVESTOCK COUNTS					
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs
Campbell	4,083	7,684	66	8	14

Table 4-64. Summary of Livestock Count Estimates in Campbell County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

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County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6

Table 4-65. Forest Acreage and Annual Removal Rates (1987-1994) in Subwatershed 051301010603.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	1.73
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	2.74
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33

Table 4-66. Annual Estimated Total Soil Loss in Subwatershed 051301010603.

4.2.D. 0513010107.

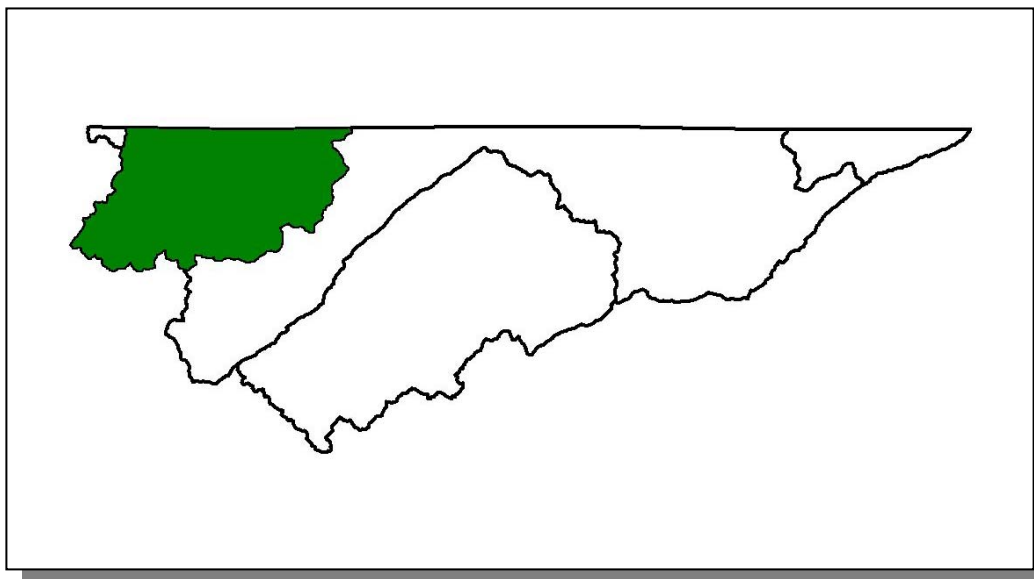


Figure 4-70. Location of Subwatershed 0513010107. All Clear Fork of the Cumberland River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

4.2.D.i. 051301010701 (Jellico Creek).

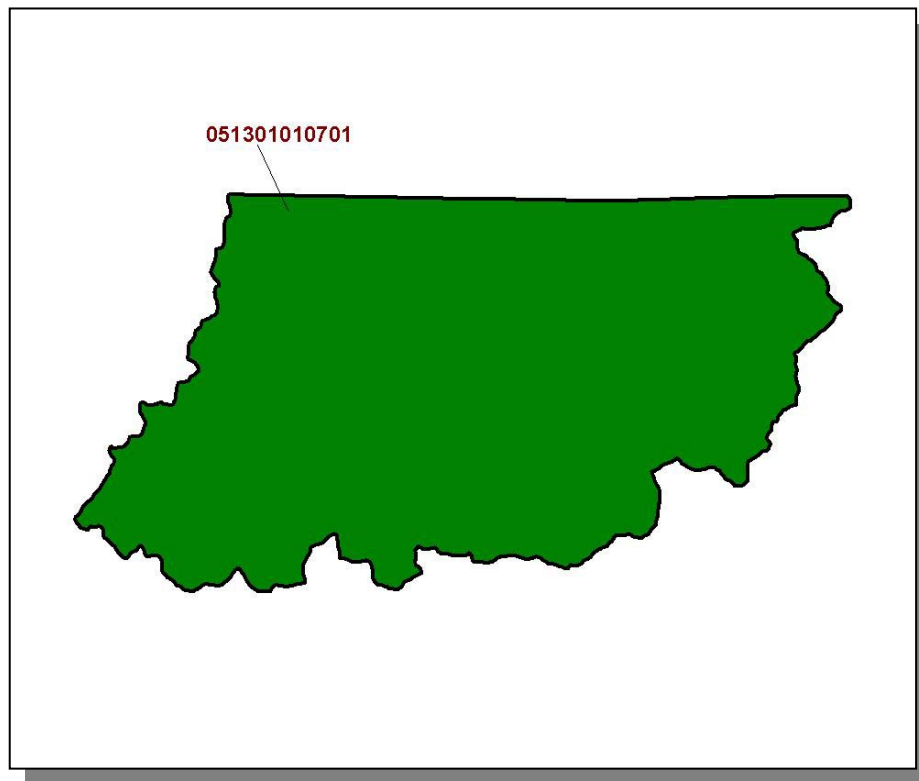


Figure 4-71. Location of Subwatershed 051301010701. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

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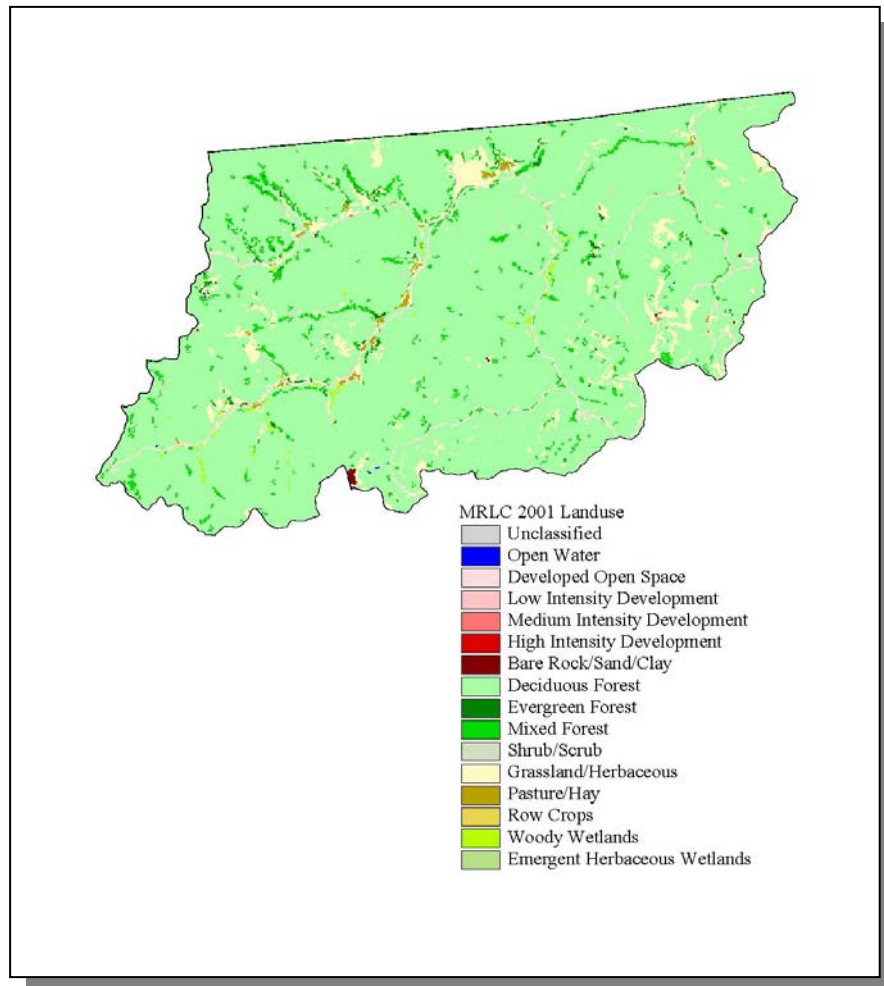


Figure 4-72. Illustration of Land Use Distribution in Subwatershed 051301010701.

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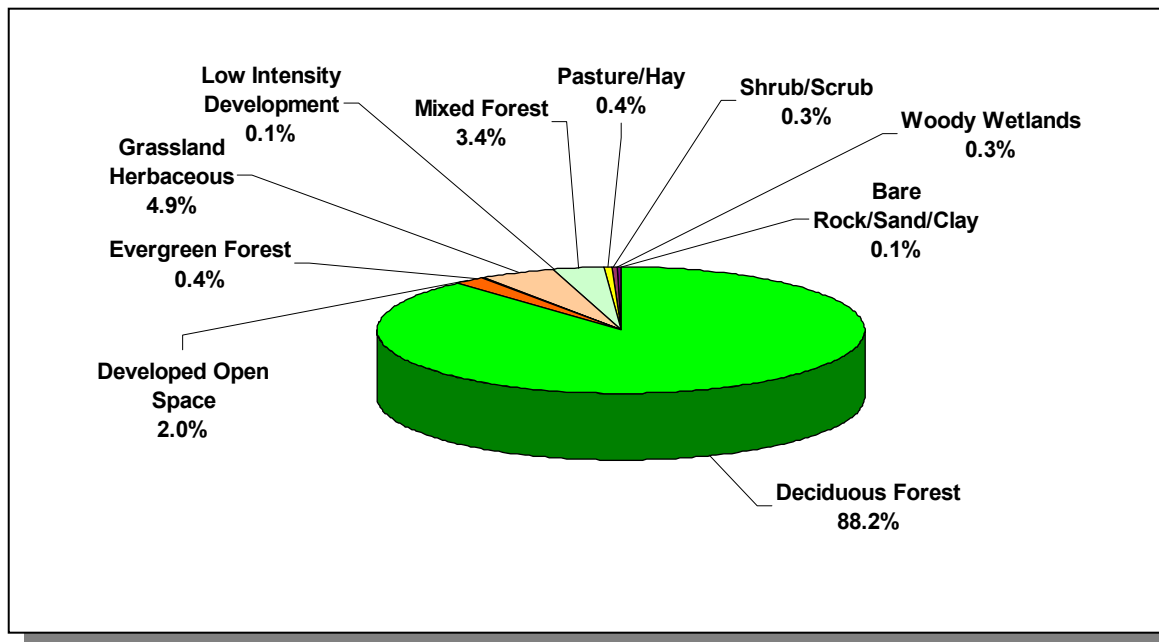


Figure 4-73. Land Use Distribution in Subwatershed 051301010701. More information is provided in Appendix IV.

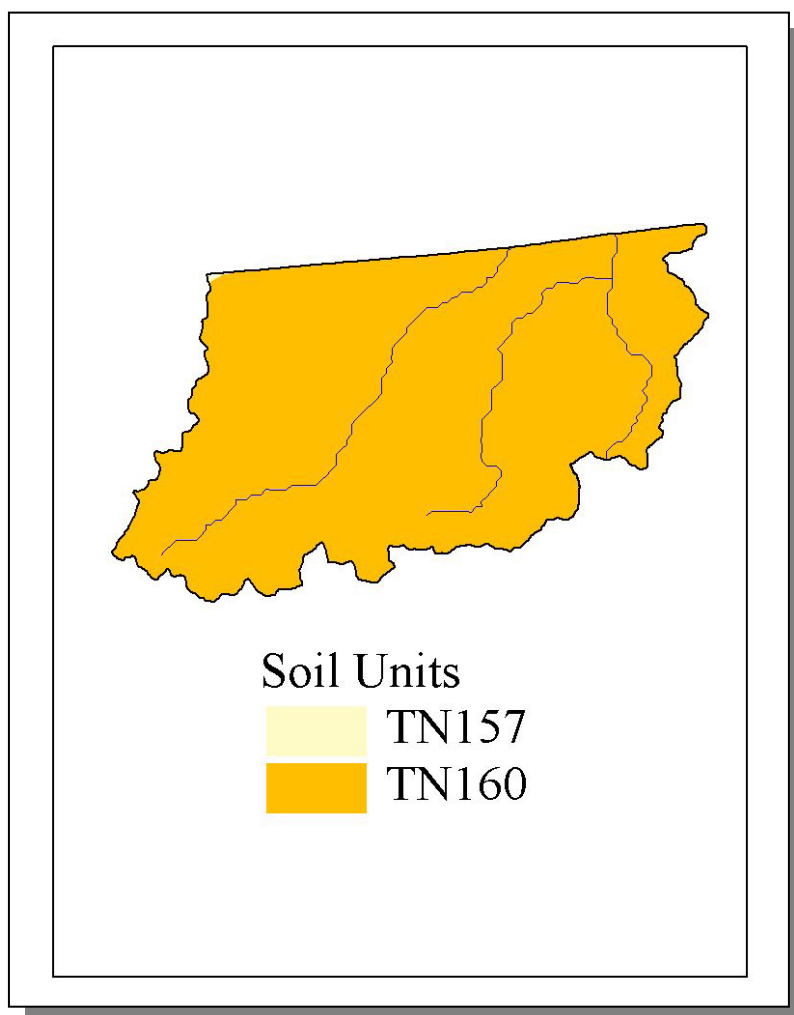


Figure 4-74. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010701.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN157	0.00	B	2.38	4.62	Loam	0.28
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-67. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010701. The definition of "Hydrologic Group" is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Campbell	35,079	37,878	39,864	1.88	659	711	748	13.5
Scott	18,358	19,816	21,127	9.36	1,718	1,854	1,977	15.1
Total	53,437	57,694	60,981		2,377	2,565	2,725	14.6

Table 4-68. Population Estimates in Subwatershed 051301010701.

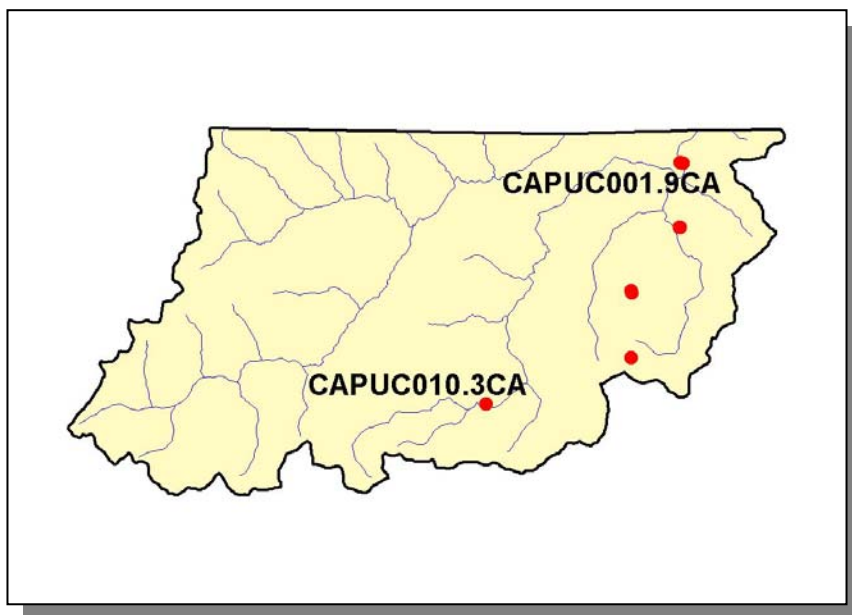


Figure 4-75. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051301010701. More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

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4.2.D.i.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.D.i.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Broilers Sold)	Hogs	Sheep
72	146	7	61,097	<5	<5

Table 4-69. Summary of Livestock Count Estimates in Subwatershed 051301010701.
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS							
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
Campbell	4,083	7,684	66	8	0	14	0
Scott	2,177	4,447	216	196	1,989,506	17	74

Table 4-70. Summary of Livestock Count Estimates in Campbell and Scott Counties.
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Campbell	250.3	250.2	2.6	10.6
Scott	300.3	300.3	5.5	21.4

Table 4-71. Forest Acreage and Annual Removal Rates (1987-1994) in Campbell and Scott Counties.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.54
Grass (Hayland)	1.78
Legumes, Grass (Hayland)	0.44
Grass, Forbs, Legumes (Mixed Pasture)	0.92
Tobacco (Row Crops)	15.11
Other Vegetable and Truck Crops	3.33
Farmsteads and Ranch Headquarters	0.09

Table 4-72. Annual Estimated Total Soil Loss in Subwatershed 051301010701.

4.2.E. 0513010108.

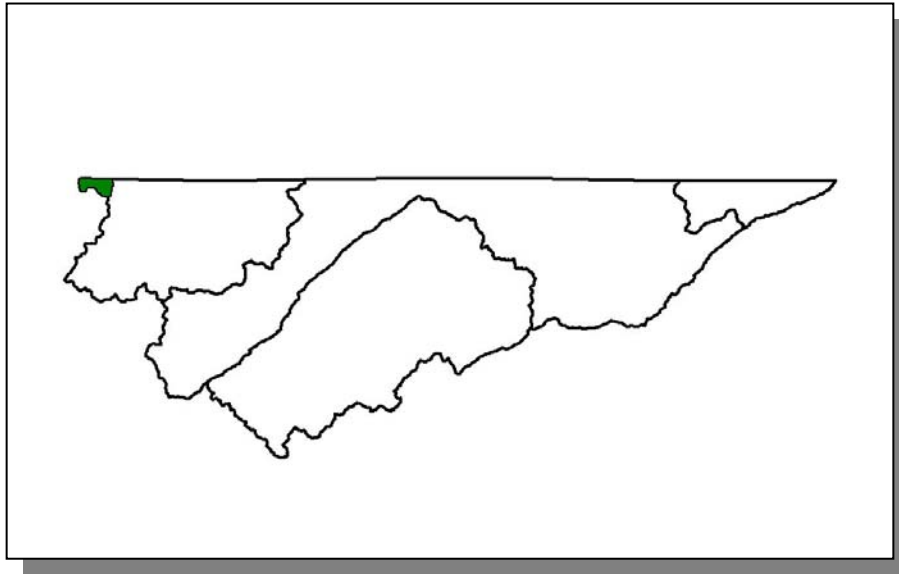


Figure 4-76. Location of Subwatershed 0513010108. All Clear Fork of the Cumberland River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

4.2.E.i. 051301010801 (Marsh Creek).

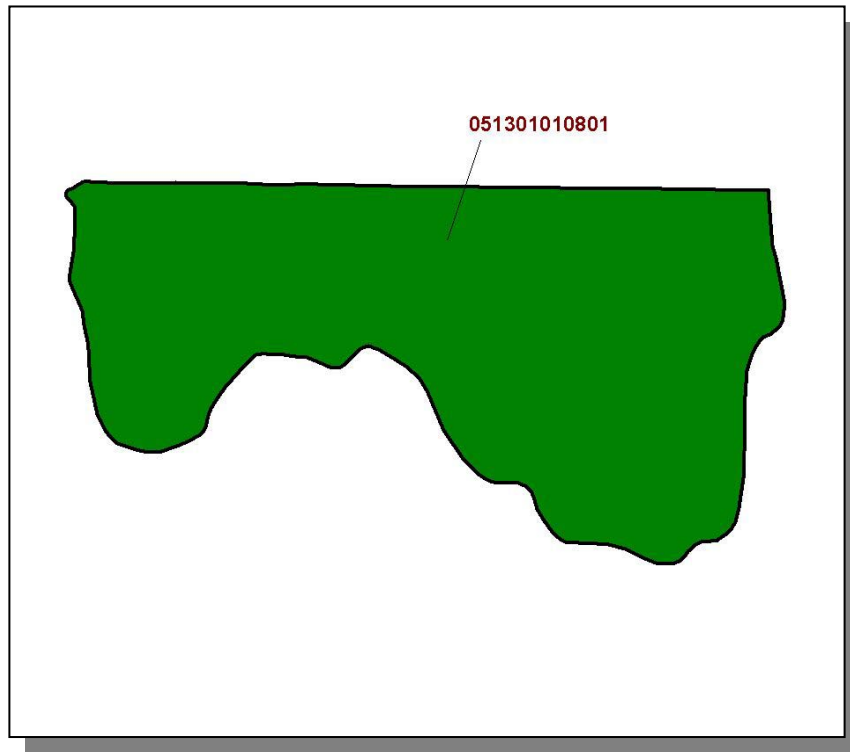


Figure 4-77. Location of Subwatershed 051301010801. All Clear Fork of the Cumberland River Watershed HUC-12 subwatershed boundaries in Tennessee are shown for reference.

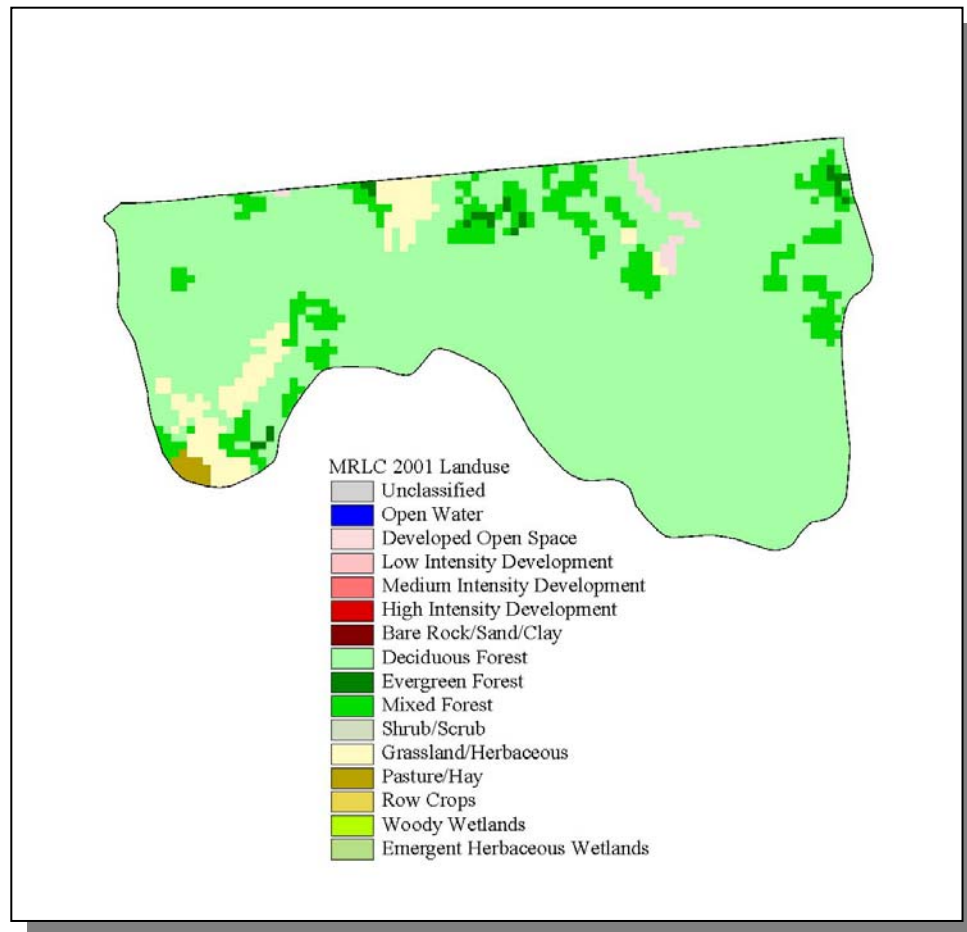


Figure 4-78. Illustration of Land Use Distribution in Subwatershed 051301010801.

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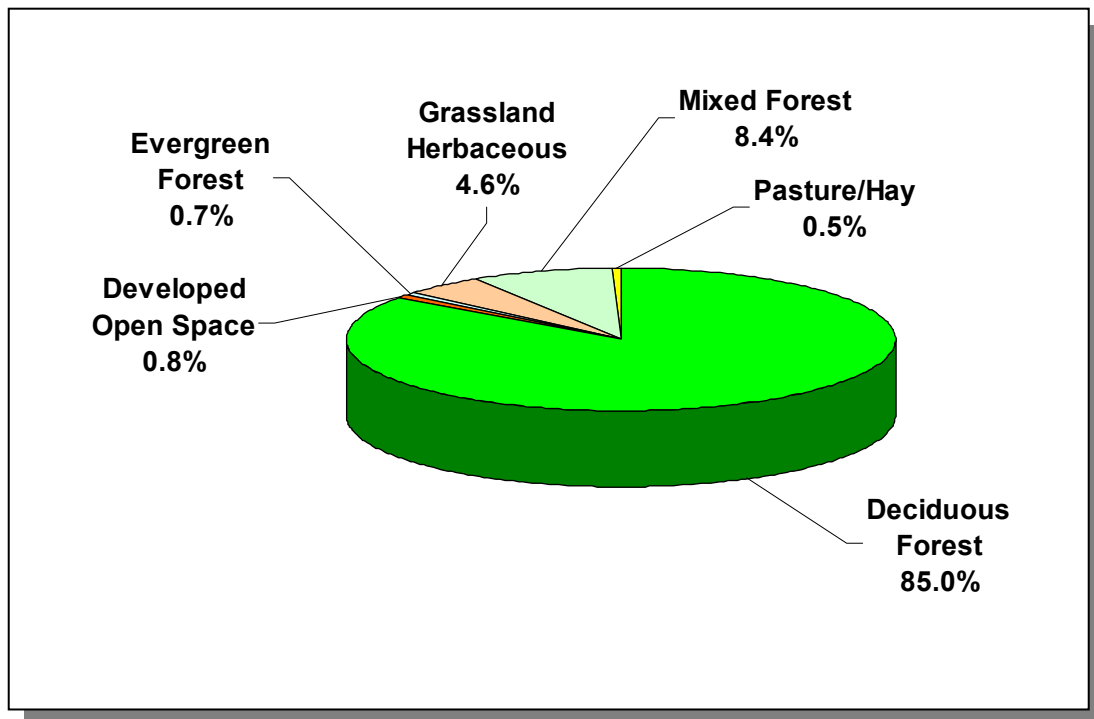


Figure 4-79. Land Use Distribution in Subwatershed 051301010801. More information is provided in Appendix IV.

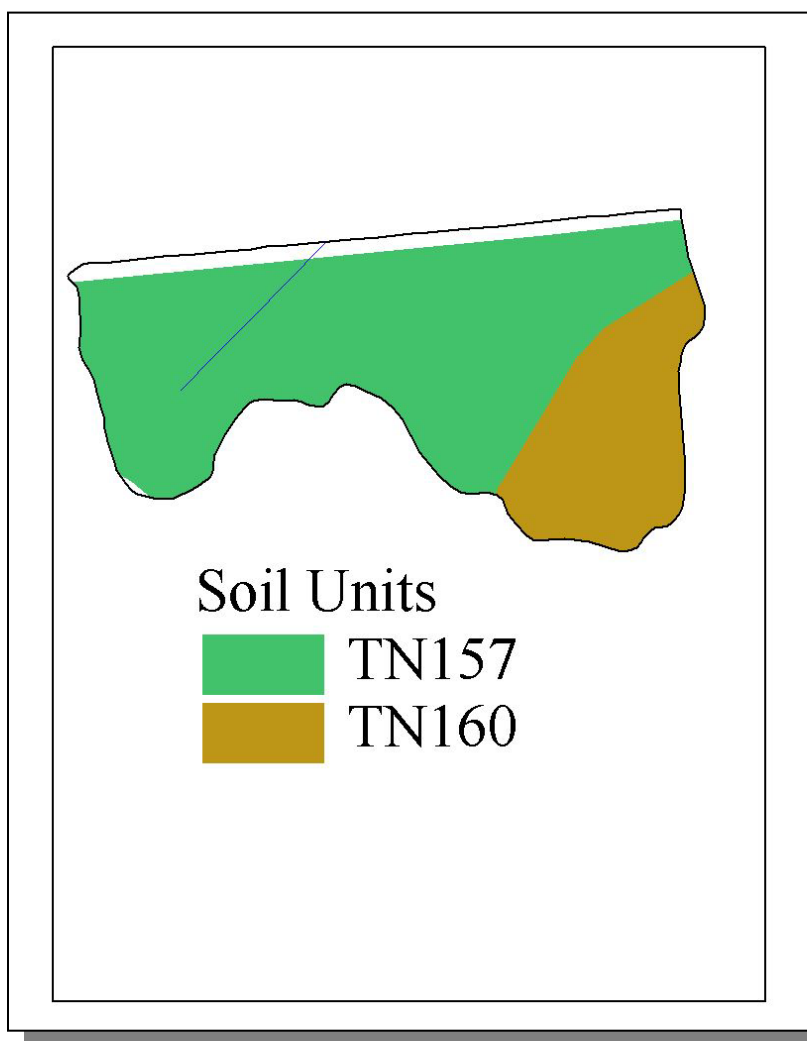


Figure 4-80. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010801.

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN157	0.00	B	2.38	4.62	Loam	0.28
TN160	0.00	B	2.69	5.36	Loam	0.25

Table 4-73. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051301010801. The definition of “Hydrologic Group” is provided in Appendix IV.

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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Scott	18,358	19,816	21,127	0.21	39	42	45	15.4

Table 4-74. Population Estimates in Subwatershed 051301010801.

4.2.E.i.a. Point Source Contributions.

There are no point source contributions in this subwatershed.

4.2.E.i.b. Nonpoint Source Contributions.

LIVESTOCK COUNTS		
Beef Cow	Cattle	Chickens (Broilers Sold)
<5	<5	1,097

Table 4-75. Summary of Livestock Count Estimates in Subwatershed 051301010801. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

LIVESTOCK COUNTS							
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Chickens (Broilers Sold)	Hogs	Sheep
Scott	2,177	4,447	216	196	1,989,506	17	74

Table 4-76. Summary of Livestock Count Estimates in Scott County. According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older; "Chickens Sold" are all chickens used to produce meat.

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County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Scott	300.3	300.3	5.5	21.4

Table 4-77. Forest Acreage and Annual Removal Rates (1987-1994) in Scott County.

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.33
Grass, Forbs, Legumes (Mixed Pasture)	0.58
Farmsteads and Ranch Headquarters	0.09

Table 4-78. Annual Estimated Total Soil Loss in Subwatershed 051301010801.